

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.13

LIBRARY
RECEIVED
★ APR 5 1921 ★
U. S. Department of Agriculture

1921

OLDS & WHIPPLE
INC.
SEEDS AND
FERTILIZERS
HARTFORD, CONN.



1891

OLD & NEW

INC.

AND

RENTALS

AND



FOREWORD

To Our Friends and Customers:

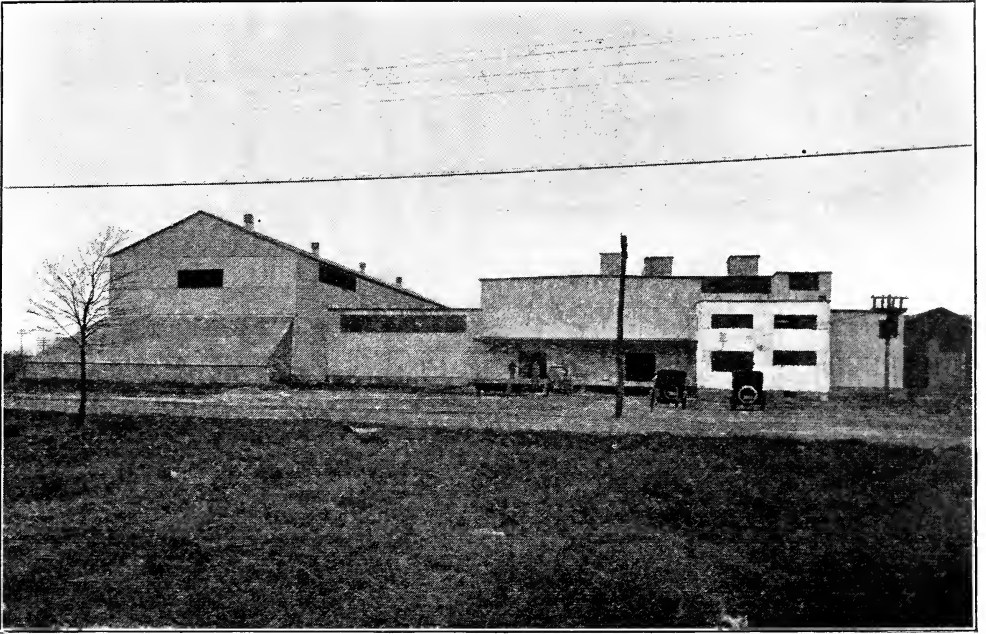
This is our forty-fourth year in business. During the past year we have incorporated and our organization is now Olds & Whipple, Inc. There is no change in management, no change in policy, simply a change in form of organization to meet modern business conditions.

Our slogan for 1921 is "Business as usual." Since August 1, 1914, industry has fluctuated wildly from one extreme to another, and the year past, 1920, will be long remembered as a period of difficulties in the transaction of our business. Now, 1921 is before us. The sun will shine and the rain descend with their usual impartiality on the just and the unjust. However, man may blunder, whatever may be the consequences of the war, nature's motto will continue to be "Business as usual."

Having outgrown our factory facilities at 96 Commerce St., Hartford, during the past year we have erected on Tolland St., East Hartford, a modern fertilizer mixing plant with a railroad frontage of over 500 feet, equipped with the most modern labor-saving devices including a huge electric traveling crane for unloading cars, we have greatly increased our facilities and can give our customers the most efficient service. The following pages contain a few photographs of our new plant.

We wish to extend to our friends our thanks for their loyal patronage in the past and to assure you that by square dealing we shall endeavor to merit same in the future.

OLDS & WHIPPLE, INC.



This photograph shows a view of our new Fertilizer Plant on Tolland Street, East Hartford as seen from the highway which passes in front of these buildings. This plant has a capacity of about 15,000 tons per year and is one of the most modern plants of its kind. All bulk materials are unloaded by means of mechanical devices into a bin adjacent to cars which enter one end of the high portion of the building. Materials are then distributed into large bins by means of an overhead electric crane which is fitted with a grab bucket. This is the only Fertilizer plant in the New England States which uses the crane for handling materials. These buildings with equipment were completed November 18, 1920.

SEED, FERTILIZER

AND

AGRICULTURAL IMPLEMENT CATALOG

For 1921



FERTILIZER FACTORY:

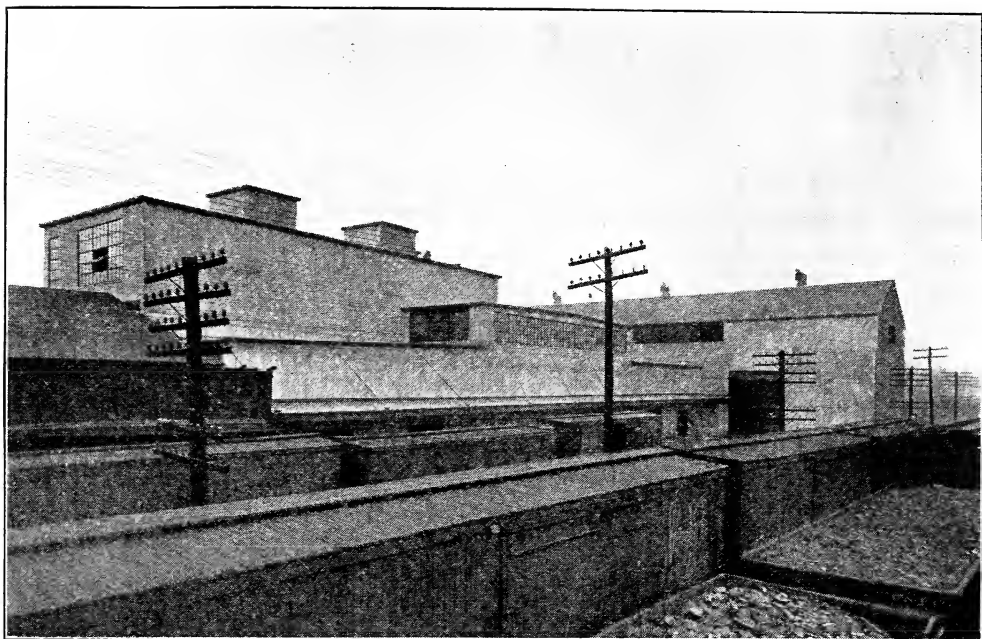
Tolland Street, East Hartford, Conn.

MAIN OFFICE AND IMPLEMENT WAREHOUSE:

164-6-8 State St., Hartford, Conn.

OLDS & WHIPPLE, Inc.

NOTE: Stop at State Street Office and secure a written order on Warehouse for fertilizers.



A view of our new Fertilizer Mixing Plant as seen from the railroad.



This photograph shows an interior view of one of our storage rooms and was taken before the buildings were entirely finished.

Olds & Whipple, Inc.

List of Fertilizers for 1921.

O. & W.'s Special Fertilizers

O. & W. Complete Tobacco Fertilizer	O. & W. Special Corn, Onion and Potato Fertilizer
O. & W. Special Tobacco Fertilizer	O. & W. Lawn Fertilizer
O. & W. High Grade Complete Tobacco Fertilizer	O. & W. Grass Fertilizer
O. & W. High Grade Tobacco Starter	O. & W. Bone and Potash Compound
O. & W. Complete Corn, Onion and Potato Fertilizer	O. & W. High Grade Starter and Potash Compound

Fertilizing Materials

Swift Sure Phosphate.	Lime for Agricultural use.
“ “ Bone Meal.	Fine Ground Nova Scotia Plaster.
High Grade C. S. Meal, with guaranteed analysis.	Acid Phosphate.
Castor Pomace with guaranteed analysis	High Grade Pulverized Bone and Meat.
Tobacco Stems in Bales.	Sulphate of Ammonia.
	Nitrate of Soda.
	Sheep Manure.

Concerning Potash, etc.

This is a year of unusual disturbance in the fertilizer trade. It is usually safest for the farmer to buy mixed fertilizers from reliable manufacturers rather than attempt to mix their own. First, because the manufacturer is proceeding along scientific lines and his special fertilizers for special crops are the results of close study and scientific knowledge of the needs of that crop. Second, the manufacturer's facilities are so far superior to the shovel of the farmer that there is little comparison in the resultant mixture. This year, however, Cottonseed Meal is so cheap that many farmers have bought same. Now, in our opinion, it would be a mistake to attempt to grow a crop on all Cottonseed Meal, as this meal lacks two important ingredients of plant food, namely phosphoric acid and potash, and the latter element, potash, we have been supplying in much reduced quantities during the past five or six years. To supply these two elements of plant food for those farmers who expect to use C. S. Meal we are offering this year our Bone & Potash Compound to be used at the rate of 1000 lbs. per acre with meal and we strongly recommend the use of same.

Our Special Mixtures for all Crops

The following pages give you a list of the special fertilizers which we manufacture at our own factory.

These special mixtures are from tested formulae, proved out by practical growing tests. They are finely ground, and mechanically, in such condition, as to render them readily available to the growing crops.

Their use will repay you. They produce the kind of crops that pay. Used and endorsed by best growers.

O. & W. Complete Tobacco Fertilizer

This year we are making this formula with a guaranteed minimum of 4% Potash. This is getting back to very nearly the amount we used before the war. Made with a cottonseed meal base, this fertilizer is the product of years of close observation and experimenting on our own tobacco farms, following the crops through the assorting and sweating up to the time it is sold to the cigar manufacturer. No tobacco fertilizer can be made better.

GUARANTEED ANALYSIS { 5 to 6 per cent. Ammonia.
4 to 5 per cent. Available Phosph. Acid.
4 to 5 per cent. Actual Potash.

O. & W. Tobacco Special Fertilizer

This is our tobacco fertilizer without potash, made with a cottonseed meal base and the same high grade material we have used in previous years. We would especially recommend it to be used in connection with stable manure and tobacco stems.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
4 to 5% Available Phosphoric Acid

O. & W. High-Grade Tobacco Starter

This high grade starter has been used with conspicuous success by some of our best growers in the valley. We recommend that it be applied after the first time hoeing. At that critical stage of growth an abundant supply of quickly available ammonia enables the plant to get a vigorous start, overcome and grow away from any unfavorable condition that may exist.

Experience has taught us that the crop that grows quickly, vigorously and does not stop until it reaches maturity produces the best goods.

Apply about 500 lbs. per acre.

Guaranteed Analysis { 10 to 11% Ammonia
3 to 4% Available Phosphoric Acid.

O. & W. Special Grass Fertilizer

GUARANTEED ANALYSIS } 6 to 7% Ammonia.
 } 8 to 9% Phosphoric Acid (available).

The grass crop is a valuable one, and yet the value will depend on the extent to which the soil has been cared for and the plant food present therein.

To secure the highest value the soil should be liberally fed with the best fertilizer obtainable.

Grass crops like other crops require and thrive best when certain forms of potash, phosphoric acid and nitrogen are used. We believe that in this "O. & W. Special Grass Fertilizer" we have developed the very finest mixture for grass that has ever been used. We have by personal experiment, come to know just what forms of these different plant food elements are required and have mixed them in the proportions needed with the result that we have obtained a grass fertilizer that can well be called high grade.

Give this mixture a trial. You will be satisfied that our claims are well founded.

O. & W. Complete Corn, Potato and Onion Fertilizer

This is one of our high grade special mixtures for use on Corn, Potato and Onion Crops

The sources of plant food are such as are exceedingly available to the plant and best suited to promoting rapid and vigorous growth. Tested at our own farms we are able to speak authoritatively as to its merits. All growers will be repaid by using this special mixture on their Crop.

Our soils are well adapted to the culture of these Crops and to make them profitable as well, is an easy matter if the culture is supplemented and promoted by the use of our special fertilizer.

GUARANTEED ANALYSIS } 4 to 5% Ammonia.
 } 8 to 9% Available Phosphoric Acid.
 } 4 to 5% Actual Potash

O. & W. Special Corn, Potato and Onion Fertilizer

This special fertilizer mixture is a great favorite in the big onion districts in Massachusetts and Connecticut. In its preparation, regard for the needs of the onion crop both as to growth and quality, have been considered, and the result is a mixture best suited to the plants needs.

Give this mixture of ours a trial and its use will convince you of our claims for it. Endorsed by best growers.

Guaranteed Analysis as follows:

3 to 4% Ammonia.
 8 to 9% Available Phosphoric Acid.
 2 to 3% Actual Potash.

O. & W. High Grade Complete Tobacco Fertilizer

This formula is made of the same high grade materials as our Complete but carries a higher percentage of both ammonia and potash and has been made to meet the requirements of those growers who wish to use a more concentrated mixture.

GUARANTEED ANALYSIS { 6 to 7% Ammonia
4 to 5% Available Phosphoric Acid
6 to 7% Actual Potash

O. & W. Bone and Potash Compound

This is the mixture mentioned on page one and is made to meet the requirements of growers who expect to use Cottonseed Meal to grow their tobacco crop. As we have before said, C. S. Meal lacks the important ingredients that we have supplied in this compound, namely, available phosphoric acid and potash, and we strongly recommend the use of 1000 lbs. per acre with the C. S. Meal.

GUARANTEED ANALYSIS { 4 to 5% Available Phosphoric Acid
15 to 16% Actual Potash

O. & W. High Grade Starter and Potash Compound


This formula is, as its name indicates, a combination of starter and potash compound, and should be used with Cottonseed Meal on land that is cold and slow and needs a starter. The ammonia in C. S. Meal is slow acting and some form of a more quickly soluble ammoniate such as furnished in this mixture is needed on cold land. We recommend 1000 lbs. per acre with C. S. Meal.

GUARANTEED ANALYSIS { 5 to 6 % Ammonia
4 to 5% Available Phosphoric Acid
15 to 16% Actual Potash

Agricultural Lime

Lime is necessary on many soils to correct acidity and to render available the inert plant food present. We are, however, of the opinion that liming may be easily overdone, that constant application would tend to make the soil alkaline. We offer lime in two forms; Agricultural Lime, which is the flakings at the lime kilns and is made up partly of airslacked lime and also contains some lime that is not thoroughly airslacked. We offer this in carload lots in bulk or bags and in bags less carlots. We can also furnish Ground Limestone in carlots, bulk or bags and in bags less carlots.

Prices on Lime and all fertilizer mixtures on application.

 Owing to unsettled conditions the prices on all goods in this catalogue are subject to change without notice.

DESCRIPTIVE CATALOGUE and PRICE LIST
OF
Garden and Farm Seeds,
Agricultural Implements and
Fertilizers
for 1921

WE DO NOT WARRANT SEEDS

The fact that no reputable seedsman now warrants seeds in any respect being well known renders it unnecessary for us to say very much on this point, as it must be apparent to every intelligent person that no seedsman can afford to send out poor or worthless seeds. There could be no more certain ways of destroying his business. We beg to append the following notice:

The seeds offered in this catalogue have been carefully selected from most reliable sources and we believe them to be first-class in every respect, but we cannot guarantee the crop as too many conditions enter into it. Therefore we give no warranty, expressed or implied, as to description, purity, productiveness, or any other matter of any seeds we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once, and if any money has been paid for them it will be refunded.

OLDS & WHIPPLE, INC.

MAIL ORDERS AND SHIPMENTS

Prompt attention to orders by mail. Mailing blank is enclosed in Catalogue to render this service more convenient. Be particular in giving name and address. The new system of Parcel Post enables us to make shipment of large packages by mail.

SEEDS BY MAIL

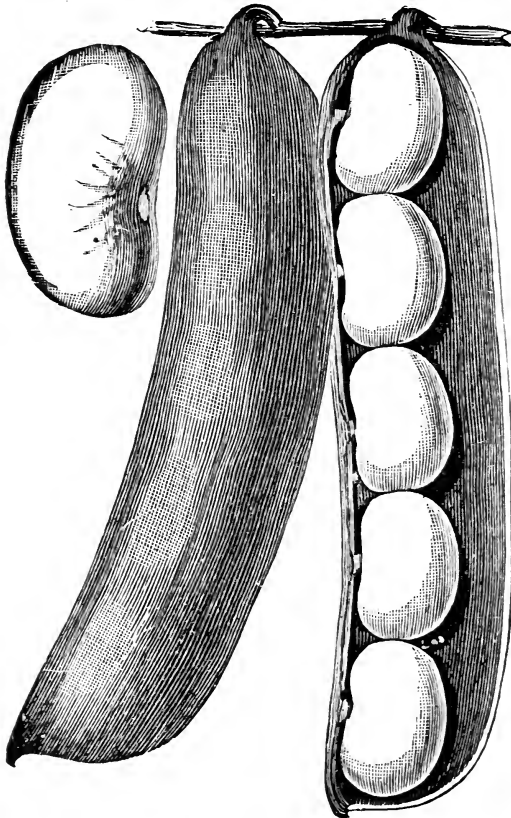
We will pay postage on seeds in packets, ounces, or by pound, with these exceptions; peas, beans, corn, onion sets, grain and grass seeds, which necessitate an extra charge of 5 cents per pound.

ASPARAGUS

An Asparagus bed may be made from one or two year old roots, planted in fall or spring. Plant the roots in rows four feet apart, leaving about twelve inches between plants in the row. Should be planted in trenches and gradually filled in as plants grow. Seeds may be sown in April in drills one foot apart and one inch deep. One ounce of seed will sow sixty feet of drill.

	Per Pkt.	Per ¼ lb.	Per lb.
Donald's Elmira.—Stalks bright green color, of mammoth size, tender and succulent,	\$0.10	\$0.20	\$0.75
The Palmetto.—Superior variety, extra large, . . . .	.10	.20	.60
Conover's Colossal.—Large and hardy, . . . .	.10	.20	.50
Donald's Elmira Roots.—Fine, large, 2 year old and fresh dug.		Per 100,	.75
Conover's Colossal Roots.—Fine, large, 2 year old and fresh dug.		Per 100,	.75
Palmetto Roots.—Fine, 2 year old.		Per 100,	.75

BEANS—Dwarf or Bush



To produce a regular succession of crops through the season, plant every two weeks, from about beginning of May to end of summer. Plant in rows 18 inches apart, two inches deep; cultivate only when soil is dry, as the scattering of earth on vines will cause them to rust. One quart will plant 100 feet of drill and one and one-half bushels for one acre.

BEANS

Owing to extremely unfavorable weather conditions, the bean crop is very short, some varieties were almost a total crop failure. Stocks are scarce and prices high.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Burpee's Bush Lima.			
Burpee' Bush Lima.—A true bush form and immense cropper,	\$0.40	\$0.35	\$0.30
Burpee's Stringless.—Green pod, extra early, . . . .	.30	.25	.22

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Improved Rust Proof, Golden Wax. —Early, long, round, stringless pods,	\$0.35	\$0.30	\$0.25
Early Golden Eyed Wax. —Hardy and prolific, flat pods, early, . . . . .	.35	.30	.25
Black Wax, Prolific. —Very early, round thick pods, . . . . .	.35	.30	.25
Wardwell's Kidney Wax. —Early, flat long wax pods, very fine, . . . . .	.35	.30	.25
Early Valentine. —Improved, true round green pod, . . . . .	.30	.27	.22
Early Yellow Six Weeks. —Flat green pods, . . . . .	.30	.27	.22
Early China or Red Eye. —A productive variety, green pod, . . . . .	.30	.27	.22
Horticultural or Cranberry. —Green pod, a superior shell bean, medium early, . . . . .	.40	.35	.32
Low's Champion. —Large green flat stringless pods, . . . . .	.35	.30	.25
White Kidney. —An excellent shell bean and for baking, green pod, . . . . .	.30	.27	.22
White Marrow. —A fine winter bean, . . . . .	.30	.27	.22
Boston Favorite. —A large late dwarf horticultural, . . . . .	.30	.27	.22
Red Kidney. —An excellent shell bean, similar to White Kidney, . . . . .	.30	.27	.22

BEANS—Pole

Plant in hills three to four feet apart, putting four or five beans in a hill, and leaving space in the center for the pole. One quart of limas will plant 100 hills. One quart of the smaller seeded sorts will plant about 200 hills.

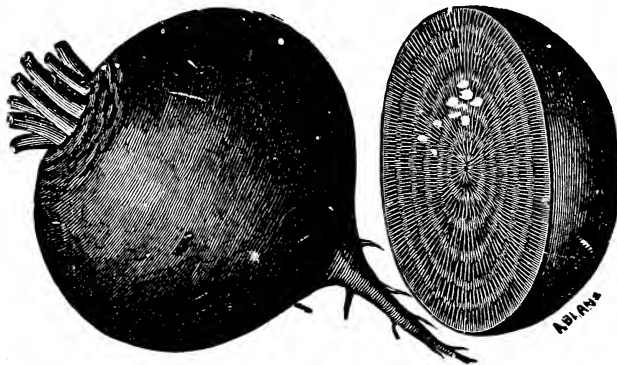
	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Extra Early Jersey Lima. —An early and large variety,	\$0.40	\$0.35	\$0.32
Lima, Large White. —An old and choice variety, . . . . .	.40	.35	.32
Lima, King of the Garden. —Large and extremely productive, . . . . .	.40	.35	.32
Early Caseknife. —Long green and flat pods, used as shell and snap bean, . . . . .	.35	.30	.27
Horticultural Cranberry. —Excellent quality, . . . . .	.40	.35	.32
Early Golden Cluster Wax Pole. —Early golden pods, large and tender, . . . . .	.40	.35	.32

BEEETS—Table Varieties

Sow from April to beginning of July, in drills about one foot apart, covering seeds about one inch. Thin the young plants when suitable size for greens to six or eight inches apart. One ounce sows 50 feet of drill, 5 to 6 pounds to one acre.

	Per pkt.	Per oz.	Per lb.
Crosby's Egyptian. —Early smooth and fine quality,	\$0.05	\$0.15	\$1.25
Edman's Extra Early. —One of the best, . . . . .	.05	.10	.95

	Per pkt.	Per oz.	Per lb.
Early Eclipse. —Very early, dark red color,	\$0.05	\$0.10	\$1.00
Early Egyptian. —Good color, a smooth turnip beet, . . . . .	.05	0.10	1.10
Early Bassano. —Earliest of all, flesh nearly white, . . . . .	.05	0.10	1.00
Detroit Dark Red. —Smooth, bright red, good keeper, . . . . .	.05	0.15	1.25



Dewing's Early Blood Turnip.

Bastian's Early Blood Turnip. —A quick large growing sort, of good color, . . . . .	.05	.10	.90
Dewing's Early Blood Turnip. —A standard variety of excellent quality, . . . . .	.05	.10	.90
Long Smooth Blood. —An excellent late variety for winter use, . . . . .	.05	.15	1.30
Swiss Chard. —Fine for greens, cultivated solely for leaves, . . . . .	.05	.15	1.25

MANGOLD WURZEL

Sow in May or June in rows, 18 inches to 2 feet apart, and thin to 8 inches in the row. The value of these for stock feeding cannot be over estimated. Sow 6 to 8 pounds to one acre.

	Per pkt.	Per oz.	per lb.
Carter's Mammoth Long Red. —A heavy cropper, one of the best,	\$0.05	\$0.10	\$.75
Norbiton Giant Long Red. —Very productive, . . . . .	.05	.10	.75
Yellow Globe. —Large globular formed roots, good for shallow soils, . . . . .	.05	.10	.70
Long Red. —Similar to Norbiton Giant, . . . . .	.05	.10	.75
Golden Tankard. —A half-long variety of bright yellow color, . . . . .	.05	.10	.75
White Sugar, Lane's Improved. —A well known variety, . . . . .	.05	.10	.75

Mangold seed in 5 pound lots, 50 cents a pound.

BROCCOLI

A vegetable resembling Cauliflower but much hardier. Requires the same general culture as cabbage. One ounce of seed produces about 1,500 plants.

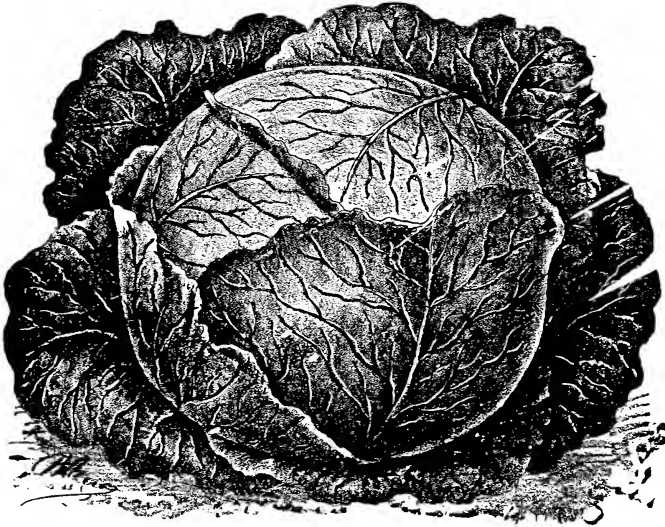
	Per pkt.	Per oz.
Purple Cape. —Medium size heads, hardy,	\$0.10	\$0.35
White Cape. —Like Purple Cape, but of cream white color, . . . . .	.10	.35

BRUSSELS SPROUTS

A species of cabbage family and cultivated in about same manner. One ounce of seed will produce about 1,200 plants.

	Per pkt.	Per oz.
O. & W.'S Best	\$0.05	\$0.25

CABBAGE—Early



All Seasons.

All the Cabbage family require rich, deep, well-drained soil. For the early kinds, plant in rows 30 inches apart and 16 inches between the plants. For the late varieties, three feet between the rows and two feet between the plants. For very early use, sow in January or February in hot-beds. Set out when plants are strong enough into other hot-beds or set in cold frames in March. Transplant when danger from frost is past to open ground. The late, or winter crop seed can be sown in May and the plants set out when large enough.

To destroy the green worm that attacks the cabbage plant, use a solution of one ounce of saltpetre in three gallons of water. One ounce of seed will produce about 3,000 plants, one-quarter pound for one acre.

	Per pkt.	Per oz.	Per lb
Copenhagen Market.—Extra early round hard head	\$0.10	\$.35	\$4.25
Early Jersey Wakefield Extra.—A fine, very early medium sized market favorite,	.10	.35	4.00
Early Summer.—A superior, second early, heads large and solid,	.10	.30	3.75
Early Flat Dutch.—A fine early variety for family use,	.10	.35	4.00
Early Winingstadt.—A medium early conical shaped head,	.10	.30	3.75
Fottler's Brunswick.—A short stemmed early drumhead,	.10	.30	3.50
All Seasons.—Medium early, very large and sure header,	.10	.30	3.75

CABBAGE—Late Varieties

	Per pkt.	Per oz.	Per lb.
O. & W. Premium Flat Dutch,—An extra fine selection of the large late Flat Dutch,	\$0.10	\$0.30	\$3.75
Improved American Drumhead Savoy.—Large, fine quality, excellent winter cabbage, . . . . .	.10	.30	3.75
Stone Mason Drumhead.—A large round solid variety, . . . . .	.10	.40	4.00
Red Dutch Drumhead.—Fine solid dark red heads, . . . . .	.10	.30	3.75
Hollander, or Danish.—A superior winter variety, heads round, very hard, fine and tender, . . . . .	.10	.40	4.00
Sure Head.—Large growing, fine heading, solid and large, . . . . .	.10	.30	3.75



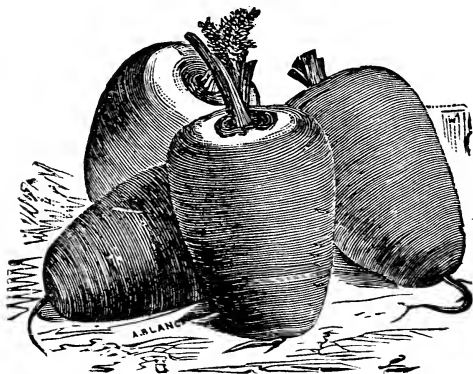
Paris Golden.

CELERY

Sow seed about the first of April in hot-bed or cold frame. Transplant four inches apart, when three inches high in rich soil; water and protect until well rooted, then transplant into rows 5 or 6 feet apart either on surface or in trenches 8 inches deep. Set the plants 10 or 12 inches apart. To blanch draw earth around the plants from time to time.

One ounce of seed will give about 4,000 plants.

	Per pkt.	Per oz.	Per lb.
Paris Golden, Self Blanching, (French.)—An early golden variety, very popular,	\$0.10	\$.50	\$6.50
Boston Market.—One of the best varieties in cultivation, . . . . .	.05	.25	2.00
Celeriac.—Turnip rooted, used for salads and soups, . . . . .	.05	.25	2.25
White Plume.—Easily bleached, usually solid and of a pleasing nutty flavor, . . . . .	.05	.35	3.50
Winter Queen.—One of the best winter varieties, . . . . .	.05	.25	2.50



CARROT

Carrots thrive best in rather light loam; soil should be well cultivated and well fertilized. Plant in rows 14 inches apart, and thin plants to 3 to 5 inches in the rows. Plant from the middle of April to the middle of May.

One ounce will sow 100 feet of drill. 3 to 4 pounds to one acre.

	Per pkt.	Per oz.	Per lb.
Geurande, or New Ox Heart.—An intermediate variety, .	\$0.05	\$0.10	\$1.25
Danvers Half Long.—A most desirable variety, great keeper, .	.05	.15	1.75
Improved Long Orange.—A large long rooted variety, for stock purposes, .	.05	.10	1.25
White Belgian.—Large, white, productive, for stock, .	.05	.10	.75
Early Scarlet Horn.—An early short variety for forcing, excellent for table, color deep orange, .	.05	.15	1.75
Early Half Long Scarlet.—Stump-rooted, coreless, red color, .	.05	.15	1.75
Chantenay.—A half-long, one of the finest for table use, .	.05	.15	1.75

CAULIFLOWER

Is one of the most delicious varieties of the Cabbage family. Requires a rich deep soil, a low moist situation being desirable. Plants should be set in rows about 2 feet apart and 18 inches between the plants.

One ounce will sow a bed of 40 square feet and produce about 2,000 plants.

	Per pkt.	Per ¼ oz.	Per oz.
Henderson's Snowball.—This ranks extremely high among the early varieties, it is a reliable header of good size and of rich white color, .	\$0.20	\$0.75	\$2.50
Erfurt Early Dwarf.—A good variety, .	.20	.75	2.50
Early Paris.—A standard early variety, .	.10	.45	1.40

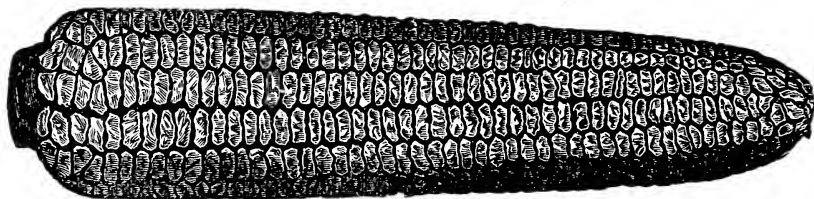
CORN—Sweet

Requires a rich warm soil. For early varieties plant when ground has become well warmed; successive plantings may be continued until July. Plant in hills from 3 to 3½ feet apart, according to the height of variety.

One quart will plant 200 hills; 8 quarts for one acre in hills.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Early Maine.—An extra early variety, .	\$0.30	\$0.24	\$0.20
Extra Early Cory.—One of the leading extra early market varieties, .	.30	.24	.20
White Cob Cory.—Similar to Early Cory; less hardy, very satisfactory, .	.30	.24	.20
New Champion.—Fine early quality with large ears, .	.30	.24	.20
Early Minnesota.—One of the second early sorts, ears of good size, .	.30	.24	.20

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Shakers Early .—About as early as Minnesota, but larger ears,	\$0.30	\$0.24	\$0.20
Crosby's Early .—An old favorite, early and of excellent quality, . . . . .	.30	.24	.20
Perry's Hybrid .—Large, early and of good quality, . . . . .	.30	.24	.20
Country Gentleman .—A rich, sweet, deep kerneled variety, with small cob, . . . . .	.30	.25	.22



Early Maine.

Squantum .—Perhaps one of the best and sweetest for main crop, . . . . .	.30	.24	.20
Evergreen .—A standard late variety, . . . . .	.25	.22	.20
Mammoth Sugar .—Extra large sweet variety, of good quality, . . . . .	.25	.22	.20
Black Mexican .—An early, tender corn of fine flavor, . . . . .	.30	.25	.20
Golden Bantam .—A yellow sweet corn, extra early and extra hardy, very tender and sweet, . . . . .	.30	.25	.20

CORN—Field

(Prices subject to market changes.)

Eureka .—A well known ensilage variety of White Corn. Very leafy, of extra large growth, and we believe will produce more tons of silage than any other variety. For Ensilage only,	} at market prices.
Leaming's Early Dent .—A very popular Dent Corn, grown for both grain and Ensilage. This variety will mature in this latitude,	
Mastodon Early .—Large, free growing, very productive,	
Longfellow .—A yellow flint corn, a well and favorably known variety,	
Early Canada Improved .—A ninety day yellow flint corn. An old Standard variety grown for grain,	
Canada Red .—A red flint corn developed at our Suffield farm. Early and productive,	

Use O. & W. Special Corn, Potato and Onion Fertilizer

CRESS

To be planted in drills and sown quite thickly, on good rich ground, in early spring.

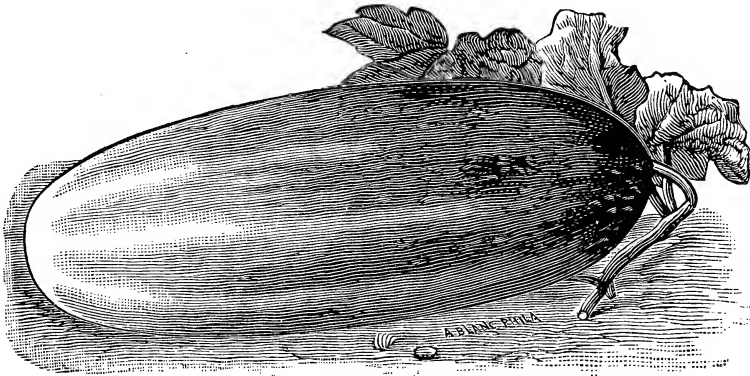
One ounce of seed will plant 100 feet of drill.

	Per pkt.	Per oz.	Per lb.
Curled ,	\$0.05	\$0.10	\$0.75

CUCUMBER

First planting should be made in May when ground is dry and warm, in hills about 4 feet apart; thin out to 3 to 4 plants to the hill when established. For pickles plant during the last two weeks in June.

One ounce will plant 50 hills; two pounds for one acre.



Improved Early White Spine.

	Per pkt.	Per. oz.	Per lb.
Early Russian. —The earliest variety, about 4 inches long,	\$0.05	\$0.10	\$1.25
Early Cluster. —Bears in clusters, early and productive,	.05	.15	1.50
Davis Perfect. —Dark green, good length, popular.	.05	.15	1.60
Snow Pickling. —One of the best pickling,	.05	.15	1.50
Improved Early White Spine. —A standard variety of uniform good size and color,	.05	.15	1.50
Green Prolific. —The very best pickling sort,	.05	.15	1.40
Boston Pickling. —Produces an abundant crop of dark green color,	.05	.15	1.50
London Long Green. —A large and late variety,	.05	.15	1.55

DANDELION

Sow in May in drills 12 inches apart, covering seeds about one-half inch deep. Cultivate to keep down weeds during summer and the following spring leaves will be suitable for cutting. Must be covered in winter to protect from frost.

One ounce for 100 feet of drill. One pound for one acre.

	Per pkt.	Per oz.	Per lb.
Improved Thick-Leaved. —Standard sort, very productive,	\$0.25	\$0.85	\$12.25
French Garden.	.15	.40	5.00

EGG PLANT

Plant the seed in hot beds early in spring. Transplant when two inches high into another bed, or small pots. Plant in garden when weather is settled and warm. Should be placed about 3 feet apart, and well watered for 2 or 3 days, until they show signs of being rooted.

	Per Pkt.	Per oz.
New York Improved Purple. —The leading market variety, excellent and very productive.	\$0.20	\$0.65
Black Beauty. —Early, fruit black, round and solid,	.20	.65

ENDIVE

For early use, sow as soon as ground can be worked in spring in drills fifteen inches apart; thin plants to six inches in the row. Any ordinary soil will do, but a moist place is preferred. To blanch the leaves, gather them together when dry and tie with matting or cover with ordinary flower pots inverted.

One ounce will produce about 3000 plants.

		Per pkt.	Per oz.
Green Curled. —A standard sort,	. . . . .	\$0.05	\$0.15
Moss Curled. —Very ornamental,	. . . . .	.05	.15
Batavian Escarolle—	. . . . .	.05	.15

KALE or German Greens

Plant the larger varieties in hills two by three feet apart and thin to one plant to the hill. Requires deep, rich soil. Set out plants in June and treat in same manner as for cabbage.

One ounce will produce 2,000 plants.

		Per pkt.	Per oz.	Per lb.
Green Curled Scotch. —Leaves of bright green, very tender and closely curled,	. . . . .	\$0.05	\$0.20	\$2.00
German Greens. —To be sown in fall for spring use,	. . . . .	.05	.15	1.50

KOHL RABI

An intermediate vegetable between the cabbage and turnip. Prepare as for cabbage. Sow in April in rows 18 inches apart and thin out to 8 inches apart.

One ounce gives 3,000 plants.

		Per pkt.	Per oz.
Early White Vienna. —A standard early,	. . . . .	\$0.10	\$0.25
Early Purple Vienna. —Very large and productive,	. . . . .	.10	.25

LEEK

Sow the seeds in April and transplant in July to rows 15 inches apart and 8 inches between plants.

One ounce will grow 1,000 plants.

		Per pkt.	Per oz.	Per lb.
American Flag. —A hardy and profitable sort, excellent for winter use,	. . . . .	\$0.10	\$0.25	\$2.50

LETTUCE



Boston Market.

Lettuce needs a rich and moist soil, should be sown in rows about 12 inches apart and the plants thinned to 10 inches apart for the heading varieties. When not grown for head they may be sown broadcast. The more rapid the growth, the better the quality.

One ounce for 3,000 plants.

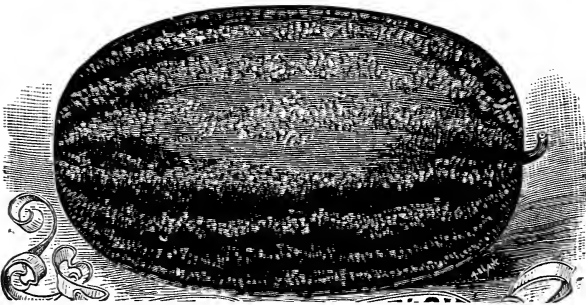
	Per pkt.	Per oz.	Per lb.
May King. —Medium size, early, good heading, a popular sort,	\$0.05	\$0.15	\$1.50
Early Curled Silesia. —Sweet, early, good variety . . . . .	.05	.15	1.25
Early Simpson. —Early, compact mass of tender leaves, . . . . .	.05	.15	1.25
Black-Seeded Simpson. —Large light-colored head variety, . . . . .	.05	.15	1.25
Boston Market. —Early, small heads, very hardy, . . . . .	.05	.15	1.25
Hanson. —Large, solid, crisp head, one of the best outdoor sorts, . . . . .	.05	.15	1.25
Tennis-Ball White Seeded. —Similar to Boston Market, . . . . .	.05	.15	1.25
Tennis-Ball Black Seeded. —Excellent for early large heads, . . . . .	.05	.15	1.25
Tomhannock. —One of the best varieties for broadcast cultivation, leaves slightly bronzed, . . . . .	.05	.15	1.25
Crisp as Ice. (Bronzed) a fine bronze leaf lettuce, . . . . .	.05	.15	1.50
Silver Ball. —Solid, compact head, very handsome, white and tender, . . . . .	.05	.15	1.40
Big Boston. —A head lettuce, for forcing or open culture, . . . . .	.05	.15	1.40

MUSTARD

Sow from April to June in drills one foot apart and cover seed lightly. Used principally for salads.

	Per oz.	Per ¼ lb.	Per lb.
White or English. —For salad or medicinal purposes,	\$0.05	\$0.15	\$0.45
Brown. —More pungent than white, . . . . .	.05	.20	.75

MELON—Water

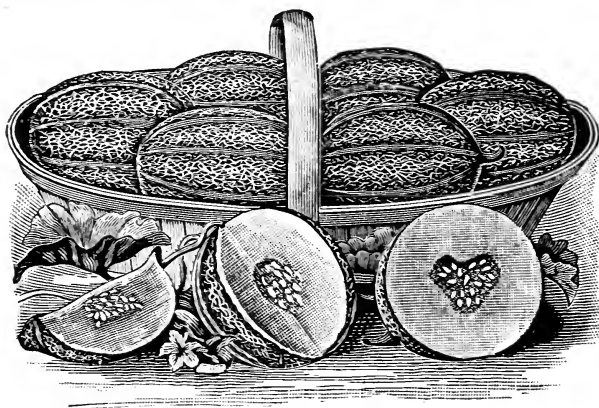


Ice Cream.

A warm light sandy loam preferred. Being tender should not be planted before middle of May. Plant in hills 5 to 6 feet apart each way for the musk varieties and 8 feet apart for the water. Cover seeds about one-half inch deep and when well started thin out to 3 plants in a hill. One ounce will plant about 15 hills; 4 pounds to the acre.

	Per pkt.	Per oz.	Per lb.
Cuban Queen. —Round, large, red meated and sweet,	\$0.05	\$0.10	\$1.00
Dark Sweet Icing. —Round, dark green and of a delicious flavor, good size, . . . . .	.05	.10	1.00
Gray Monarch. —Very large, of exceptional fine quality, long, red color and very sweet, . . . . .	.05	.10	0.90

	Per pkt.	Per oz.	Per lb.
Kleckley's Sweet. —Oblong in form, dark green, thin rimmed, flesh bright scarlet, white seed, sweetest of all,	\$0.05	\$0.10	\$1.00
Mountain Sweet. —An old standard variety, early and solid, . . . . .	.05	.10	.85
Phinney's Early. —Early, reliable, red fleshed, productive, . . . . .	.05	.10	.80
Ice Cream. —White seeds, medium size, solid fine flavor, one of the most popular varieties grown, . . . . .	.05	.10	1.00
Kolb's Gem. —Flesh bright red, almost round, grows large, very choice, . . . . .	.05	.10	1.00
Citron for Preserves . . . . .	.05	.10	.80



Rocky Ford Melon

MELON—Musk

One ounce will plant 80 hills; 2 to 3 pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Nutmeg. —A superb green-fleshed variety,	\$0.05	\$0.10	\$1.00
Hackensack. —Large, productive and good flavor, green fleshed . . . . .	.05	.10	.90
Rocky Ford. —A very popular variety, flesh light green, sweet and delicate flavor, . . . . .	.05	.10	1.00
Osage, Green Fleshed. —Very hardy and desirous, . . . . .	.05	.15	1.25
Early Yellow Cantaloupe. —Early, large and showy, . . . . .	.05	.15	1.25
Miller's Cream. —Thick meated and salmon colored flesh, delicious, . . . . .	.05	.15	1.25
Paul Rose. —An extra quality, salmon flesh, medium size, . . . . .	.05	.10	.95
Emerald Gem. —Small, but prolific, yellow meated, superior quality, . . . . .	.05	.15	1.20
Green Citron Netted. —Yellow meat, early and good flavor, . . . . .	.05	.10	.75
Osage, Salmon Fleshed. —A deliciously sweet melon of fine flavor, . . . . .	.05	.15	1.20

NASTURTIIUM

Cultivated for both use and ornament. Young seeds may be used as capers and leaves for salad purposes. The beautiful flowers, blooming freely all summer add a charm to the garden and lawn. Plant in May.

	Per oz.	Per ¼ lb.	Per lb.
Tall. —An ornamental climber,	\$0.15	\$0.45	\$1.10
Dwarf. —Fine for borders and beds, . . . . .	.15	.45	1.10

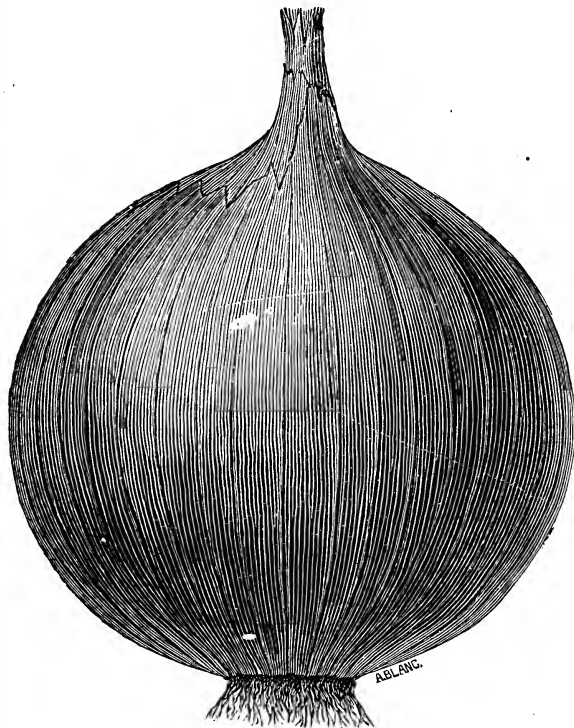
OKRA

Plant in rows 2 feet apart, thinning plants to 1 foot apart in the row.

	Per pkt.	Per oz.	Per lb.
Dwarf Green. —Early and productive,	\$0.05	\$0.10	\$0.60

ONION

(Strictly new seed—Prices subject to change.)



Southport Red Globe.

O. & W. Complete Onion Fertilizer.

A fertilizer that will produce remarkable crops. Used by many of the best growers in Massachusetts and Connecticut.

The onion thrives best in deep, loamy soil, well fertilized. Sow the seeds thinly in drills 1 foot apart. Cover seeds about $\frac{1}{4}$ inch, roll and tread soil down solidly. When 3 inches high, thin out to 3 inches apart. Cultivate well and keep out weeds.

One ounce seed will sow 100 feet of drill. Six pounds for one acre.

The seed we offer is HOME GROWN and calculated to give greater satisfaction than western grown seed.

	per pkt.	Per oz.	Per lb.
Extra Early Red. —Early, of flat shape, mild,	\$0.10	\$0.25	\$2.50
Wethersfield Large Red. —A large yielder, excellent to keep,	.10	.25	2.50
Southport Red Globe. —Finest large red sort,	.10	.25	2.75
Southport Yellow Globe. —Handsome and late variety,	.10	.25	2.50
Yellow Globe Danvers. —One of the superior yellow globe varieties,	.10	.25	2.50
O. & W. Yellow Globe Danvers. —A fine selected strain of the Yellow Globe Danvers, specially grown for us: very choice,	.10	.25	2.75
Prize Taker. —Yellow skin, white flesh, good cropper, large size,	.10	.25	3.00
Southport White Globe. —Early, mild flavored, large, not a good keeper,	.10	.35	4.10

ONION SETS

Should be planted as early as the ground can be worked in rows 12 inches apart. Set each about 3 inches apart. When onions are grown from sets they can be used in the green state in June, or will ripen by July.

Red Top.	} at market prices.
White.—For rare-ripes,	.	.	.	.	.	.
Potato.	.	.	.	.	.	.
Yellow.	.	.	.	.	.	.

PARSLEY

Sow early in spring in drills 1 foot apart, covering lightly; thin out the plants to 3 to 4 inches apart; used for flavoring and garnishing. A single row forms a good edging for flower-beds or walks.

	Per pkt.	Per oz.	Per lb.
Moss Curled.—Very ornamental and productive,	.05	.15	1 25
Curled, or Doubled.—A most beautiful variety, moss-like leaves of handsome bright green color,	.05	.15	1.25

PARSNIP

Make the soil very fine and plant the seed very early, in rows eighteen inches apart, thinning plants to three or five inches in the rows; seeds should be covered about one-half inch deep.

Parsnips, aside from table use, have great value for stock-feeding purposes. Are improved by allowing to remain in open ground through the winter.

One ounce to 150 feet of drill; five pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Abbott's Improved Hollow Crown—A great cropper, tender and sweet,	.05	.15	.90
Long Smooth White.—One of the best for general cultivation,	.05	.15	.90



PEAS

The wrinkled varieties, while the sweetest of all peas, are more liable to rot, being tender, and need to be planted thicker and later than the round, hard sorts. Soil needs to be well manured. Have the dwarf varieties in rows two and one-half feet apart; those kinds growing two to three feet high, in rows three feet apart, and the tallest in rows four feet apart. The smooth varieties may be sown as soon as ground can be worked; the wrinkled sorts when soil is well warmed.

One quart to 100 feet of drill: one and one-half bushels to an acre.

	Per lb.	5 lb. lots Per lb.	Lots of 15 lb. Per lb.
Carter's Premium Gem.			
East Hartford Extra Early.—True stock, 2½ feet best early variety in the market, smooth variety	.30	.25	.22

	Per lb.	5 lb. lot Per lb.	15 lb. lot Per lb.
Alaska. —Hard, blue pea, 2½ feet, extra early,	\$0.30	\$0.25	\$0.22
Gradus, or Prosperity. —An extra early wrinkled pea, very large pods, of magnificent quality, . . . . .	.45	.40	.36
Carter's Premium Gem. —Wrinkled pea, about 12 to 15 inches high, very productive, early, . . . . .	.40	.35	.30
Bliss's American Wonder. —Very dwarf, early wrinkled pea, . . . . .	.40	.35	.30
Nott's Excelsior. —A wrinkled dwarf, of excellent variety, early, . . . . .	.40	.35	.30
Sutton's Excelsior. —Similar to Nott's Excelsior, but producing larger and more abundant pods, . . . . .	.45	.42	.38
Daisy or Dwarf Telephone. —Dwarf habit, wrinkled, large pods, second early, . . . . .	.45	.40	.35
Bliss's Everbearing. —Very productive, peas large and wrinkled, two and one-half feet high, . . . . .	.35	.32	.30
McLean's Advancer. —An old and choice variety, two and one-half feet high, wrinkled, . . . . .	.35	.30	.25
Heroine. —Medium early, wrinkled, two to three feet high, quality perfection, . . . . .	.40	.35	.30
Yorkshire Hero. —Large, wrinkled pea, tender and fine flavored, two and one-half feet high, . . . . .	.40	.35	.30
Thomas Laxton. —Of similar growth to Gradus, a few days later, pods are deep rich green. In the judgment of many the Thomas Laxon is even sweeter and finer flavor than Gradus. . . . .	.45	.42	.38
Telephone. —Four feet high, large peas of rich, sugary flavor, . . . . .	.40	.36	.32
Champion of England. —An old standard variety, late, five feet high, . . . . .	.40	.35	.30
Canada Field. —For stock purposes,			

\$7.50 per 100 lbs.

PEPPER

Should be started in hot beds, and transplanted into open ground by end of May; set in rows eighteen inches apart and plants about twelve inches apart in the rows.

One ounce of seed will produce about 3,000 plants.

	Per pkt.	Per oz.
Sweet Mountain. —Largely grown for both market and home use,	\$0.10	\$0.60
Bull Nose. —This has long been the standard sweet sort, . . . . .	.10	.60
Ruby King. —Most popular large red pepper in cultivation, . . . . .	.10	.60
Large Squash. —Thick fleshed, early and mild flavored, . . . . .	.10	.50
Long Red Cayenne. —The true Cayenne, hot and pungent, . . . . .	.10	.60
Small Red Cherry. —A small smooth and round variety; productive, . . . . .	.10	.60

PUMPKIN

To be cultivated in same manner as squash.

Small Yellow Sugar.—A handsome prolific variety, good keeper, best for pies,

Per oz.

Per lb.

\$0.15

\$1.25

Large Cheese.—Very large and good keeping variety,

.10

.75

Connecticut Yellow Field.—Grown largely for stock purposes,

.10

1.00

POTATOES—Northern Grown

From Aroostook County, Maine.

Use eleven bushels, or four barrels per acre. (See pages 30 and 31 for description of varieties,) AT LOWEST MARKET PRICES.

You will note we have reduced the number of varieties of seed potatoes. We have retained the varieties of real merit and discarded only old and worn out seedlings.

Spaulding Rose

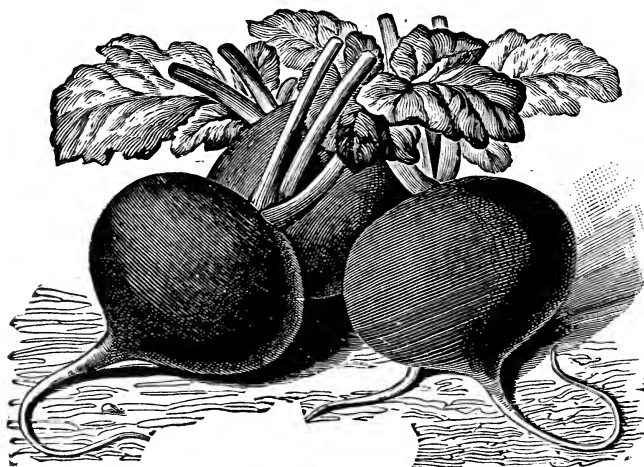
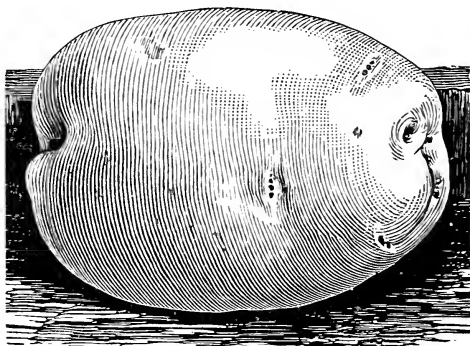
Irish Cobbler,

Carman 3,

Green Mountain (Improved)

Gold Coin,

Dibble Russet.



Deep Scarlet Turnip.

RADISH

For early use sow in spring as soon as ground can be worked. Sow in drills six to ten inches apart and thin out to one inch apart in the rows; as the roots are more tender and brittle when grown quickly, a rich light soil is preferred. For a succession sow every two weeks.

One ounce will sow 100 feet of drill; eight pounds for one acre.

Per pkt.

Per oz.

Per lb.

Early Scarlet Turnip.—Round red with white tip,

.05

.10

1.00

	Per pkt.	Per oz.	Per lb.
Deep Scarlet Turnip. —An all red standard variety,	\$0.05	\$0.10	\$1.00
Early Long Scarlet, Short Top. —The standard early long variety, . . . . .	.05	.10	1.00
French Breakfast. —Most popular variety, of olive shape, red with white tip, quick growing, . . . . .	.05	.15	1.25
Scarlet Olive Shaped. —Original strain; quite early, very crisp, . . . . .	.05	.10	.90
White Turnip. —For summer and winter use, . . . . .	.05	.10	1.25
Black Spanish Long. —Black skin, white flesh—a winter variety, . . . . .	.05	.10	1.25
Round Black Spanish. —The favorite German winter radish, . . . . .	.05	.10	1.25
Rose Color China Winter. —Grows large and tender, good for winter use, . . . . .	.05	.10	1.25

RHUBARB

Propagate from roots in richly prepared soil. Plants should be set five feet apart.

Victoria Giant.	\$0.25 a root
----------------------------------	---------------

SALSIFY, or Vegetable Oyster

Sow early in spring in light rich soil in drills fourteen inches apart and thin out to three inches apart in the row. The roots will be ready for use in October. When cooked the flavor resembles the oyster.

	Per pkt.	Per oz.	Per lb.
Sandwich Island Mammoth. —This variety grows to an unusually large size, roots tender and good flavor,	\$0.10	\$0.25	\$2.50

SPINACH

For very early spring use sow in August, for summer use sow in early spring, in drills about ten or twelve inches apart, covering the seed one inch deep. To obtain a succession sow at intervals of two weeks through the season. One ounce to 100 feet of drill, 10 pounds to one acre.

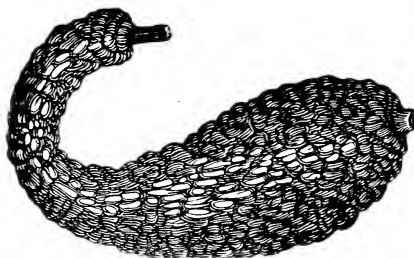
	Per oz.	Per lb.
Round Thick Leaf. —Produces dark thick leaves, somewhat crumpled,	\$0.10	\$0.75
Large Viroflay. —Grows extra large size, . . . . .	.10	.75
Long Standing, or Evergreen. —Latest in seeding, one of the best for garden use, . . . . .	.10	.75
Savoy Leaved. —Early, wrinkled and hardy . . . . .	.10	.75
New Zealand. —A very productive spreading plant, . . . . .	.20	1.75

In lots of 5 lb. other than New Zealand 55c per lb.

SQUASH

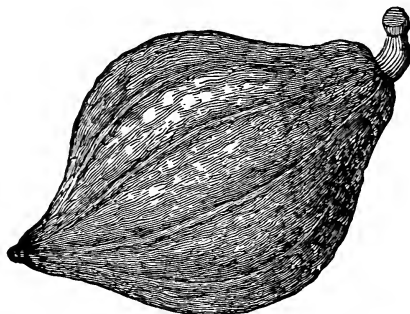
Requires rich, warm soil. Plant in hills nine to ten feet apart for running varieties, and five or six feet apart for bush sorts. Leave two or three plants to a hill. Cultivate frequently.

One ounce will sow twenty to forty hills; two to four lbs. per acre.



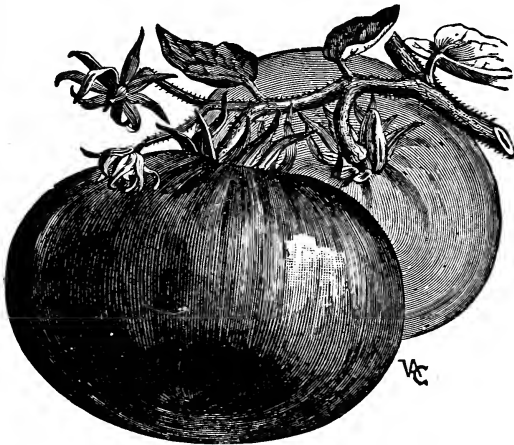
Summer Crookneck.

	Per pkt.	Per oz.	Per lb.
Early Summer Crookneck. —The finest bush variety,	\$0.05	\$0.10	\$1.25
Giant Summer Crookneck. —Larger than the early summer,	.05	.15	1.50
Early White Bush Scallop. —Matures early and bears continuously,	.05	.10	.90
Early Yellow Bush Scallop. —Same as Early White, except in color,	.05	.10	.90
Hubbard. —The well known and most popular winter squash,	.10	.20	2.25
Boston Marrow. —A bright orange colored squash for autumn, very productive,	.05	.10	1.00
Fordhook. —A desirable running variety,	.05	.10	1.30
Mammoth Chili. —Extra large, grows upwards 100 pounds at times,	.05	.15	1.35
Golden Hubbard. —Similar to the standard Hubbard but smaller and earlier and of a golden red color,	.05	.15	2.00
Cocozelle. —Compact bush growth, fruit oblong, foot or more in length, skin dark green with stripe,	.05	.15	1.75



Hubbard Squash.

TOMATO



Livingston's Beauty.

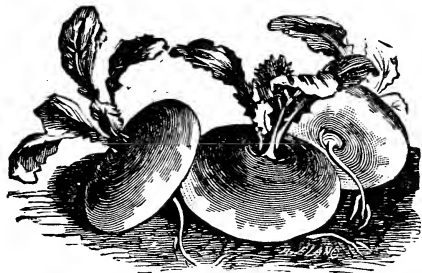
Sow the seed in March or April in hot bed. Transplant when plants are five inches high to open ground, after danger from frost has passed. Should be set four feet apart each way, on mounds of earth, to allow foliage to open and sun to reach the fruit.

	Per pkt.	Per ½ oz.	Per oz.
New Dwarf Champion. —Most popular of dwarf varieties, fruit deep purplish red,	\$0.10	\$0.20	\$0.35
Livingston's Beauty. —A large round solid smooth variety, a glowing crimson color, . . . . .	.10	.25	.40
Acme. —A standard variety, round, bright pink in color, . . . . .	.10	.20	.35
Livingston's New Stone. —Large, smooth, solid, scarlet color, . . . . .	.10	.20	.35
Ponderosa. —Largest variety grown, . . . . .	.10	.25	.45
Yellow Plum. —Small, elegant, fine for preserves, . . . . .	.10	.20	.35
Chalk's Early Jewell. —About one week later than Earliana, large, solid fine quality, . . . . .	.10	.20	.35
Spark's Earliana. —The earliest large red grown, exceedingly productive, . . . . .	.10	.25	.40
Bonnie Best. —Very early, vigorous grower, smooth, brilliant, scarlet fruit, very prolific, . . . . .	.10	.25	.40

TURNIP

For early varieties sow as soon as the ground can be worked in spring.

For fall and winter use, seed should be sown from the middle of July to middle of August, seed generally sown broadcast, using one pound to the acre.



Early Flat Dutch.

	Per pkt.	Per oz.	Per lb.
Early Purple Top Milan. —Finest early,	\$0.05	\$0.10	\$1.25
Early Flat Dutch White. —A popular market variety, . . . . .	.05	.10	.85
White Strap Leaf Flat. —Fine, handsome, extra early, . . . . .	.05	.10	.85
Purple Top Strap Leaf. —One of the standard flat varieties, . . . . .	.05	.10	.75
Yellow Globe. —Fine for table use, fall and winter, . . . . .	.05	.10	.75

	Per pkt.	Per oz.	Per lb.
Golden Ball.—Very tender, fine flavored,	\$0.05	\$0.10	\$.75
White Egg.—Handsome, oval form, thin skin,	.05	.10	.75
Cow Horn.—Pure white, except at top,	.05	.10	.90
Purple Top White Globe.—A thick, round, quick growing variety,	.05	.10	.75

RUTA-BAGA

Seed should be sown in drills thirty inches apart, thin out to one foot apart in the row.

	Per oz.	Per lb.
American Purple Top Swede.—Flesh deep yellow, free growing,	\$0.10	\$1.00
White Rock or Sweet German.—White and sweet, a good keeper,	.10	1.00
Skerving's Improved.—Standard field variety,	.10	1.00
Long Island Purple Top.—Yellow turnip of best quality,	.10	1.00

HERBS

	Per pkt.	Per oz.
Summer Savory,	\$0.10	\$0.20
Sage,	.10	.60
Sweet Marjoram,	.10	.30
Thyme,	.15	.75
Dill,	.05	.10

TOBACCO

We are very careful in the selection of our tobacco seed, growing much of it on our own farm and saving the seed from only such plants as bear the correct type of leaf. We buy only of the most reputable growers. This seed is thoroughly blown which removes all the light seed, as we believe the heavier seed makes the strongest plants.

	Per ½ oz.	Per oz.	Per lb.
Willow Brook Broadleaf.—Specially grown and selected,	.25	.50	7.00
John Williams' Broad Leaf,	.25	.50	7.00
Havana, Special selected type, round point leaf, very choice,	.25	.50	7.00
Cuban Type, shade grown,	.40	.75	9.00

It Pays to use
OUR SPECIAL FERTILIZER
FOR THE TOBACCO CROP.

O. & W. LAWN GRASS SEED

A Perfect Lawn Mixture.

Our lawn grass mixture is composed exclusively of the best seeds of the choicest fine bladed grasses free from weeds.

It will produce a rich, velvety lawn, an enduring, elastic turf. To get the best results proper drainage and thorough preparation of the soil is necessary; this being done our seed mixture assures a beautiful lawn.

We recommend sowing about one quart to a space fifteen feet square, or four bushels to the acre.

Price, Per qt., 30c. 2 qts., 55c. $\frac{1}{2}$ peck, 85c. Peck, \$1.60 Bush, \$6.00

Our Lawn and Garden Fertilizer

For Spring and Early Summer Treatment

To maintain a luxuriant lawn proper fertilizing is necessary.

The old method of applying stable manure, so objectionable because it carries weed seeds as well as being unsightly and odorous, is no longer practiced. We manufacture a lawn dressing carrying all the essential plant foods so necessary to produce luxuriant growth and dark, rich, green color so much desired.

We recommend for lawns that it be used at rate of 100 lbs. for 7,500 sq. ft. For gardens double the quantity.

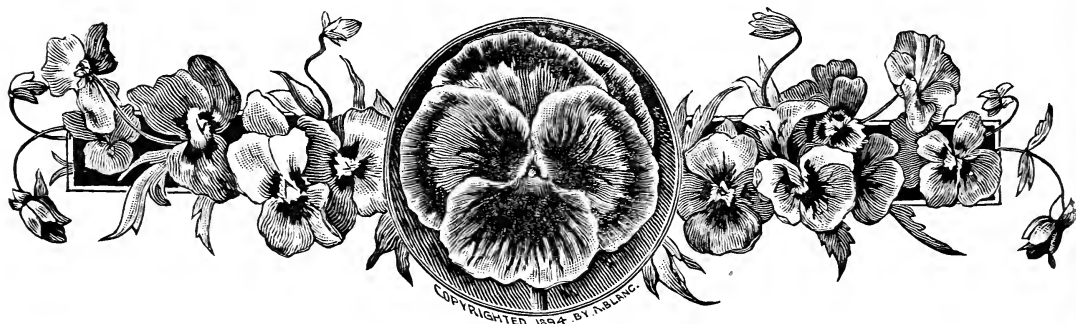
Price, \$3.75 per Cwt. City delivery.

We also have for Lawns:

Bone Meal,	Price Per 100 lbs.	\$4.25
Sheep Manure,	" "	3.25
Hard Wood Ashes.	" "	3.00

Our O. & W. Lawn and Garden Fertilizer
A SPECIAL FERTILIZER FOR LAWNS AND GARDENS

A Selected List of Popular Flower Seeds



The cultivation of flowers well repays all the labor and care bestowed on them. Much of the disappointment attending unsuccessful cultivation could be overcome by careful planting and observance of those conditions of soil and growth peculiar to these sensitive plants. The soil should be mellow and well enriched with compost or fertilizer. If made into beds they should be well drained. The soil also requires to be made as fine as possible, not lumpy. Seeds should be covered in strict proportion to their size. The smaller seeds need little, if any covering.

After sowing they should be well *firmed* by pressing the surface with a smooth planed board. On each package directions are given specific to that kind.

	Pkt.		Pkt.		Pkt.
Ageratum,	\$0.05	Cosmos, Mixed,	.10	Morning Glory,	\$0 .05
Sweet Alyssum,	.05	Crysanthemum,		Nasturtium, Tall,	.05
Asters, White,	.10	White,	.10	Dwarf,	.05
Mixed,	.10	Mixed,	.10	Poppy, Shirley,	.10
Bachelor's Buttons,	.10	Dahlia, Single,	.10	Mixed,	.10
Balsam, Mixed,	.05	Double,	.10	Pansy,	.10
Carnation,		Four-O-Clocks,	.05	Petunia,	.10
Marguerite,	.10	Forget-me-not,	.10	Phlox, Drummondi,	.10
Calliopsis,	.10	Gaillardia,	.10	Stocks Mixed,	.10
Canna, Mixed,	.05	Heliotrope,	.10	Sweet William,	.05
Candytuft,	.05	Hollyhock,	.10	Verbena,	.05
Castor Beans,	.05	Marigold,	.05	Zinnia,	.05
Chinese Pink,	.10	Mignonette,	.10		

SWEET PEAS

The Queen Flower of the Garden

A List of the Choicest Selected Named Varieties of the Famous Spencer Type of Sweet Peas.

For many years we have taken just pride in our sweet peas. This year we offer these separate named varieties of the Spencer sweet peas, whose wonderful coloring and form will surely prove a great delight to our customers. We shall have these separate varieties in bulk for those who desire to plant straight colors and also a mixture of these same varieties for those who wish to sow in this way. Everyone should try some of these famous Spencer Sweet Peas. You will be amazed at the beauty and showing they make.

	$\frac{1}{2}$ oz.	oz.	$\frac{1}{4}$ lb.
Mrs. Routzhan. —Apricot, pink and straw color,	\$0.20	\$0.35	\$1.25
Apple Blossom. —Crimson and light pink,	"	"	"
Asta Ohm. —Pinkish lavender, charming soft lavender suffused with mauve,	"	"	"
Aurora. —Orange and white striped,	"	"	"
King Edward. —A deep red.	"	"	"
Dainty. —A white with pink edge. Ground color is pure white with a very distinct margin of rose pink,	"	"	"
Elfrieda Pearson. —Light, pink flowers of extra large size,	"	"	"
Florence Nightingale. —Bluish lavender, enlivened by a very faint sheen of rose pink,	"	"	"
Primrose. —The color is a clear primrose throughout. Flowers measure two inches across.	"	"	"
George Herbert. —Rose crimson, gigantic flowers, borne four to a stem,	"	"	"
Queen Victoria. —Buff with a blush tint, a most pleasing color effect.	"	"	"
Senator. —Chocolate, purple and white striped. A combi- nation of deep claret and chocolate on a field of lilac.	"	"	"
Thomas Stevenson. —Flowers of bright, flaming orange of immense size,	"	"	"
Tennant. —A purplish mauve, the best of the heliotrope shades,	"	"	"
White Spencer. —Pure white wave flowers of large sizes,	"	"	"
Choice Spencer Mixed. —A mixture of these choice Spencer varieties,	oz. \$0.25	$\frac{1}{4}$ lb. \$0.75	per lb. \$2.50

Sweet Peas should be planted in drills about 2 inches deep, well manured and given plenty of water.

List of Grass, Clover and Millet Seed

(At market Prices)

Timothy, or Herd's Grass. One of, if not the commonest and best known grasses. Very valuable for hay. Perennial, fibrous and often bulbous rooted. (45 lbs. to the bushel.)

Red Top. Is a fine permanent grass. Often sown with timothy and red clover, in which case the clover soon disappears to be replaced by timothy, which in turn gives way to the red top. Very valuable in mixtures for permanent pastures.

Chaff Red Top 10 lbs. to the bushel. Fancy or cleaned 35 lbs. to the bushel.

Kentucky Blue Grass. Also called June grass. Root-creeping, perennial, flowers in June. It requires about two to three years to become well set and does not arrive at perfection as a pasture grass until the third or fourth season. (14 lbs. to the bushel.)

Orchard Grass. A perennial grass, flowers from June to July. Very valuable for pastures, also in connection with timothy and clover for hay crops. When used with timothy use one bushel orchard and 8 lbs. clover. If sown alone use three bushels to the acre. (14 lbs. to the bushel.)

Rhode Island Bent. Root-creeping, perennial, flowers in July. Very valuable for lawn purposes. Sow from three to four bushels to the acre. (10 lbs. to the bushel.)

Large Red, or Mammoth Clover. Grows from four to five feet high; stocks so coarse that cattle will eat but leaves only, but by its judicious use, exhausted lands may be reclaimed. (60 lbs. to the bushel.)

Medium Red Clover. The most important of all the varieties of clover for the practical purposes of agriculture. Sown with timothy and other grasses it produces desirable hay or pastures. (60 lbs. to the bushel.)

White Clover. The value of this clover is well known; it is found in most every natural pasture. It is adapted to all soils. Being deep-rooted it withstands drought when grown on dry, sandy sections. It should form a part of all mixtures for permanent pastures. (60 lbs. to the bushel.)

Alsike, (Clover). This is one of the hardy varieties. It resists cold, extreme drought and wet, and on rich warm soils yields immense crops of hay, or pasture of good quality. (60 lbs. to the bushel.)

Alfalfa (Clover). A heavy forage crop doing well in almost all localities. Requires well limed soil and good drainage.

Hungarian (grass) Millet. Splendid forage crop for light land. On rich land two crops may be grown the same season. Withstands drought and yields abundantly. (48 lbs. to the bushel.)

Golden, or German Millet. A heavier cropper than the Hungarian, and needs a longer season and a stiffer soil, stands up well, is easily cured, makes a coarse, harsh hay, which is greedily eaten by all kinds of stock. (50 lbs. to the bushel.)

Japanese Millet. This is by many considered the most valuable of all forage plants. It makes more hay than German millet or any other. Although it grows large, sometimes seven or eight feet high, the hay is of excellent quality. It is adapted to all sections.

Use O. & W. Special Grass Fertilizer
The Fertilizer That Makes Grass Grow.

Grain and Miscellaneous Seeds for Fodder Ensilage and Soiling Crops.

(All at Prevailing Market Prices.)

Ensilage and Fodder

The productive capacity of the farm for stock purposes is greatly enhanced by the growing of silage crops.

It has become well known that by the feeding of silage there is a marked increase of profits to the dairy farmer.

We have a selected stock of seeds for silage and green fodder crops as listed below.

Eureka. The greatest of Ensilage varieties. A White Corn of extra large growth leafy and yielding immense returns for silage,

Leaming's Dent Corn. A very early and productive variety.

Mastodon Dent Corn. A strong growing, early, with large stalks and large grain.

Improved Canada Corn.—The standard yellow flint corn.

Longfellow Yellow Flint. A well known flint variety.

Canada Field Peas. Grown largely with oats as fodder crop. At market prices.

Leguminous Plants as Soiling Crops

All the leguminous plants (peas, clovers and beans, etc.,) have the power of taking up the free nitrogen in the air and converting it into available forms of ammonia so very valuable as a fertilizing ingredient to the soil.

Therefore the roots (or, as in some cases where the entire plant is turned under) provides a large supply of available ammonia for the crops which are to follow.

Cow Peas,	.	.	.	.	.	at lowest market prices
Soja Beans (Soy Beans),	.	.	.	.	.	" " "
Mammoth Clover,	.	.	.	.	.	" " "
Medium Clover,	.	.	.	.	.	" " "
Vicia Villosa, or Hairy Vetch,	.	.	.	.	.	" " "

GRAINS

Barley,	.	.	.	.	.	at lowest market prices
Japanese Buckwheat,	.	.	.	.	.	" " "
Silver Hull Buckwheat,	.	.	.	.	.	" " "
Rye,	.	.	.	.	.	" " "
Seed Oats,	.	.	.	.	.	at market price

Use "O. & W." Special Grain Fertilizer

MAINE SEED POTATOES

Grown for Seed by

SEED GROWERS IN MAINE.

We do not believe any argument is necessary to convince our farmers that it pays to plant MAINE SEED. We believe ninety percent of our customers will agree that the use of northern grown seed means increased yield.

IT PAYS TO PLANT MAINE SEED.

We speak from experience when we say it is a mistake

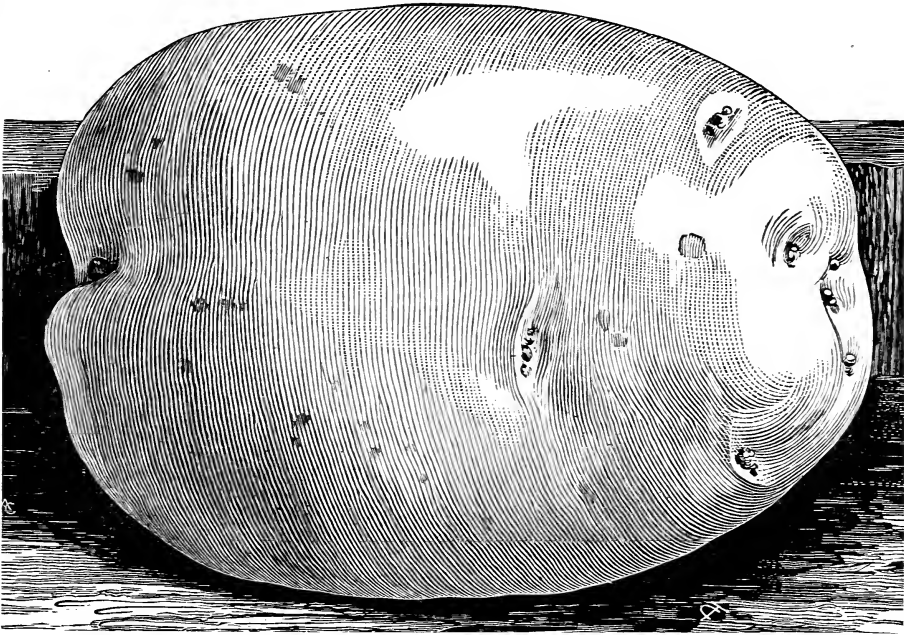
- To cut seed a long time before using ;
- To allow the fertilizer to touch the seed pieces ;
- To allow the seed pieces to remain in the sun uncovered ;
- To plant seed grown in any section but the far north ;
- To plant less than 4 bbls. per acre ,
- To expect a good crop from small seed pieces ;
- To plant potatoes without first thoroughly pulverizing the soil ;
- To buy your seeds from any but *reliable* seedsmen.

Spaulding Rose.—This is a Rose variety, pink skin, good table quality and an enormous yielder.

Irish Cobbler.—An excellent extra early variety, will mature in seven weeks from time of planting; in color pure white with deep eyes, usually of good cooking quality.

Dibble's Russet—Our Connecticut State Station says relative to this variety: "This potato came into prominence in this state through its decided resistance to drought injury which was so serious and unusual last year (1918), taking the form of prematuring and wilting and we have no hesitancy whatever in stating that it is a decidedly valuable potato to grow here on that account. We found it last year a good yielder and quality seems to be usually good under most conditions, and potatoes kept very well." This potato was originated in New York State and our stock on *this variety alone* comes from that state.

Use O. & W. Potato Fertilizer



Carman 3.—A late Maine crop potato; this variety will produce almost all large potatoes and but few small ones, claimed by its introducers to outyield any other variety. Good keeping qualities.

Gold Coin.—Productive and of unsurpassed quality, very uniform in size. Skin a light golden tinge, usually having a russet appearance which indicates good table qualities; a vigorous grower not easily effected by blight.

Improved Green Mountain.—This variety is too well known to require any description; it is recognized as the standard of excellence in all New England; white skinned, oval formed, smooth and attractive and a good yielder.

To get the best results potatoes must be carefully sprayed. Use Bordeaux Mixture Powder, 8 pounds to 50 gallons of water. Apply 50 gallons of this solution per acre. First application when vines are from four to six inches high. Subsequent applications from 10 days to 2 weeks until 4 to 6 applications have been made. This treatment is to control blight and flea beetle. As soon as potato bugs put in their appearance add 4 to 6 lbs. of Arsenate of Lead Paste or or 2 to 3 lbs. Arsenate of Lead Powder to each 50 gallons of diluted Bordeaux Mixture or 50 gallons of water if Bordeaux is not being applied. One application of Arsenate of Lead is usually sufficient to control Potato Bugs. However, during seasons when they are especially bad, two to three applications may be necessary to cover new growth of foliage.

It Pays to use our Potato Fertilizer

BUG DEATH

NON-POISONOUS



PATENTED MARCH 16TH '97.

Pat. March 16 and Nov. 9, 1897.
Pat. in Canada, Nov. 2, 1897.

It frees the plant from all insects. As it contains no arsenic it does not burn or blight the plant, and retard its growth. On potatoes it keeps the vines green from ten days to two weeks longer, thus giving the potato more chance to mature, which means a more starchy potato and one less liable to rot. Last, but not least, the extra yield of marketable potatoes more than pays the entire expense.

B. D.

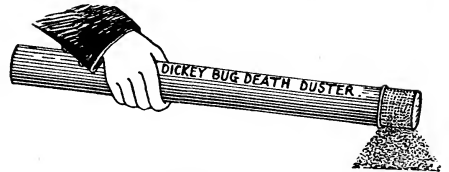
Sifter

85 Cents.



PRICE LIST

1 Pound Package,	-	-	\$0.20
3 " "	-	-	.50
5 " "	-	-	.70
12 1-2 lb, "	-	-	1.50
100 lb. keg,	-	-	10.00
Dickey Duster	-	-	.60



For Applying Bug Death dry, to potato vines.

Directions for Applying Dry

For potato and other vines which require a top application, apply dry with Perfection Shaker at the rate of 12½ pounds or more per acre to an application, according to size and condition of the vines.

For house and garden plants and small shrubs use rubber atomizer or any of the bellows that are on the market for that purpose. Dust the plant thoroughly. The best results are obtained by using when the vines are damp.

Directions for Using in Water for One Acre

Add to 12½ pounds of Bug Death 80 gallons water; mix thoroughly; spray on vines with any of the various sprayers that are on the market. We prefer a barrel or knapsack sprayer that is fitted with an agitator, otherwise solution must be frequently stirred so that Bug Death is held in suspension. Spray vines thoroughly.

**We Carry in Stock at Market Prices
A Complete Line of Insecticides.**

Arsenate of Lead Paste; Arsenate of Lead Powder; Lime and Sulphur Solution; Pyrox; Plant Lice Killer; Black Leaf 40; Paris Green.



A prosperous Tobacco Farm in the Connecticut Valley. This photograph taken August 25th, 1920, shows the harvest nearly completed.



"Smiling Dan". Why shouldn't he smile? He uses Olds & Whipple's Fertilizers and has raised a banner crop in spite of some unfavorable weather conditions.

Agricultural Implements

Farm and Garden Tools

Owing to unsettled market conditions, all prices on implements and tools subject to change without notice.

The following pages are devoted to a description of farm implements which we sell. Our selection of these has been made in the same careful way as governs the selection of all the goods we offer to our customers.

Our object and desire being to sell only the best and such as will be most acceptable to our trade, both in point of service, convenience, and economy.

A partial list follows of some goods we do not illustrate. Read it over carefully as it may contain something you need. Samples of all may be seen at our showrooms, 164-8 State St., and prices will be made upon application. Write us also if what you need is not listed here, as we aim to make our store the headquarters for everything needed on the farm.

Clipper Smoothing Harrow (in one, two, or three sections)

Doe Plows.

"M" Plows.

Road Plows.

Eclipse Weeders.

Field and Garden Rollers.

Mowing Machines.

Hay Rakes.

Tedders.

Prout Hoes.

Field Markers and Ridgers.

Horse and Hand Corn Planters.

Wheelbarrows.

Canal Barrows.

Grindstones.

Forks.

Hoes.

Shovels.

Farmers' Set Kettles or Cauldrons (with or without furnace) in different sizes.

Binding Twine.

Hay Carriers, Forks, etc.

Axes.

Garden Hose.

Corn Husker.

McWhorter No. 21 Hand Fertilizer Sower.

PLEASE NOTE.

We make a point of keeping on hand a line of repairs for Plows, Harrows, and all other implements we sell.

Hay Loaders, Side Delivery Rakes and Knife Grinders.

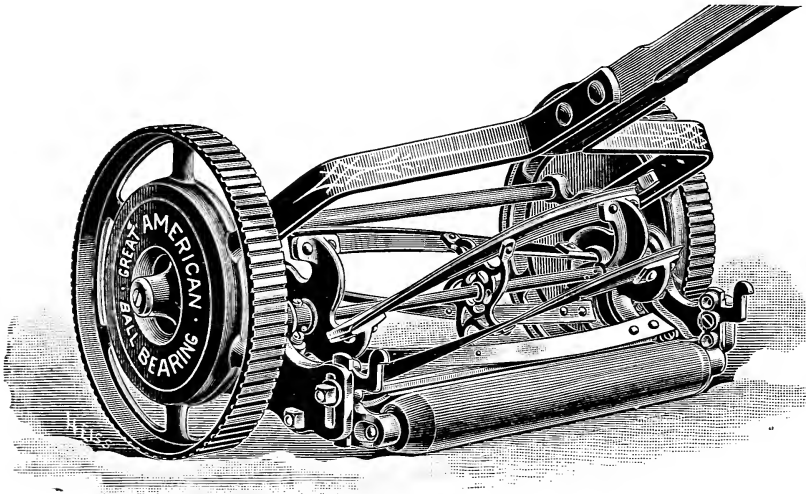
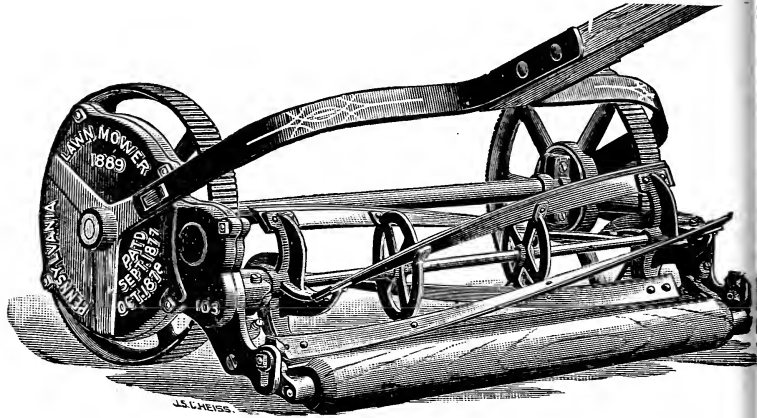
We will gladly make prices and send special reading matter on any of the above.

"PENNSYLVANIA" Hand and Horse Lawn Mowers

Sizes 15, 17, 19, and 21 inch,
High Wheel.

The "Pennsylvania" has been
recognized for many years as
the standard among Lawn
Mowers.

Cuts longer grass, requires less
repairs than any other mower
made. Used on the State Capitol
grounds and by all first class
gardeners everywhere.



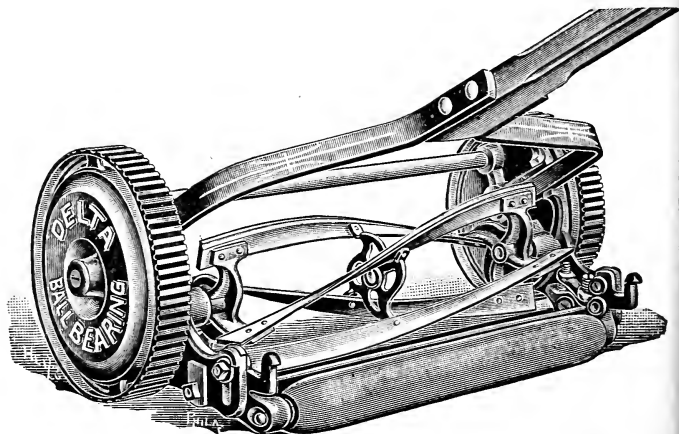
GREAT AMERICAN Lawn Mower

Sizes 15, 17, 19 and 21
inch., High Wheel.

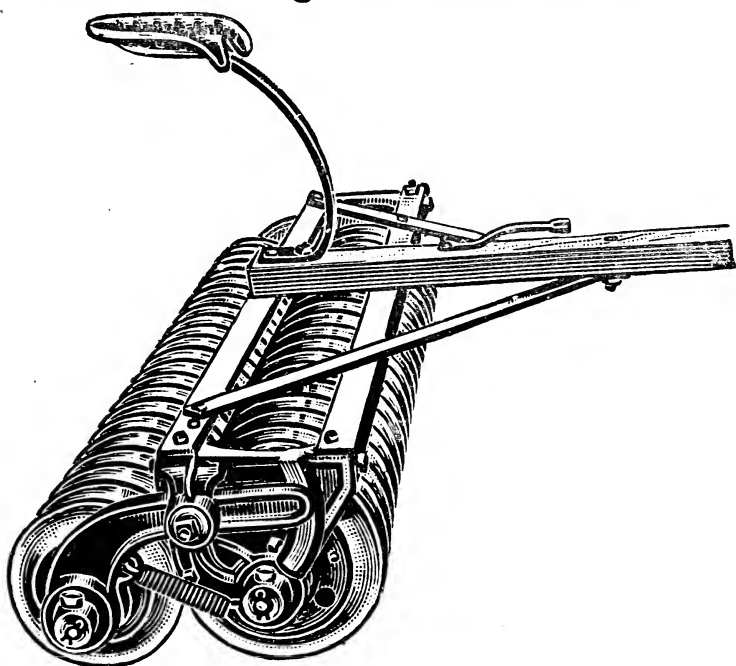
This Mower is of the
same manufacture as the
"Pennsylvania," and is
a high grade machine
throughout. Has ball-
bearing equipment which
insures less friction and
wear. It has been sold
by us for eleven years
and given highest sat-
isfaction.

The "DELTA" Ball-Bearing Lawn Mower

This is another of the famous
Pennsylvania family of high grade
mowers. It is ball-bearing. Thor-
oughly well made and of medium
price, made in 14, 16, and 18 inch
cutting sizes.



The New Roller-Bearing, Light Draft, D-Type Brillion King Soil Pulverizer



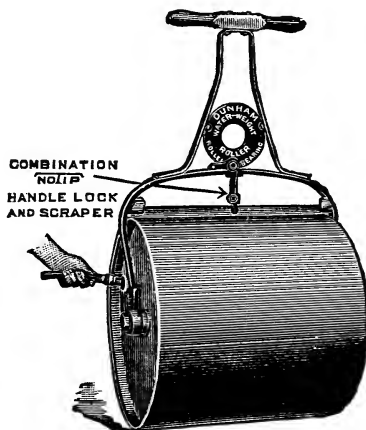
To make your soil yield the greatest possible return for your money, time and labor, you must first properly prepare the seed bed. A certain amount of moisture is absolutely necessary for dissolving the plant food particulars in the soil. Therefore, the soil must be so pulverized and packed as to retain the proper moisture for feeding the plant. Mere plowing and harrowing is not enough as there is too much air space left between the furrow slices. Heavy sod land should be well disced before the pulverizer is used. Most farmers who have tractors do both operations at once by hitching the pulverizer behind the harrow. Made in single and double gang and in many sizes.

D-60 Double Gang 6 feet long, 29 sections, front gang 15" in diameter, rear gang 12" in diameter. Price \$83 00. . . . Net cash \$80.00.

F-72 Single Gang 7 feet long, 18 sections, 15" in diameter. Price \$68.00. . . . Net cash \$65.00.

HAND LAWN ROLLERS

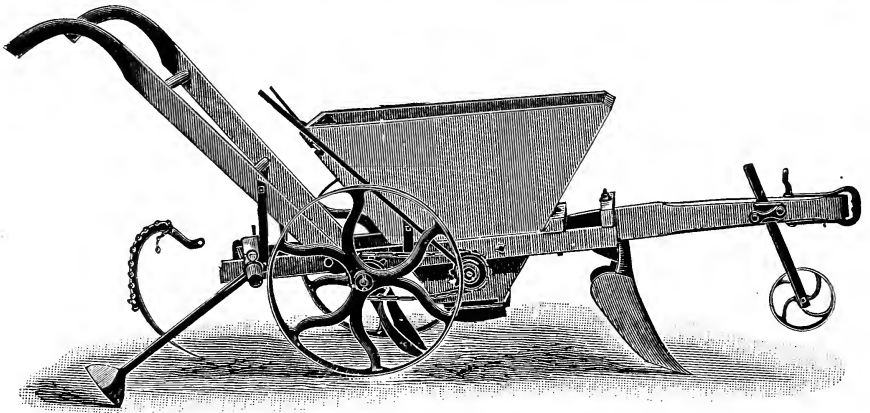
The water weight lawn roller has almost entirely superseded the old fashion cast iron roller. By regulating the amount of water it can be made to weigh as desired. We offer it in three sizes.



COMBINATION
"ROLIP"
HANDLE LOCK
AND SCRAPER

	Diameter of drum	Width of drum	Weight empty	Weight filled with water	Weight filled with sand	Prices.
No. 1420	14 $\frac{1}{4}$ in.	20 in.	46 lbs.	149 lbs.	227 lbs.	\$19.00
No. 1824	18 $\frac{1}{4}$ in.	23 $\frac{1}{4}$ in.	76 lbs.	274 lbs.	425 lbs.	24.50
No. 2424	23 $\frac{1}{4}$ in.	23 $\frac{1}{4}$ in.	95 lbs.	418 lbs.	665 lbs.	28.25

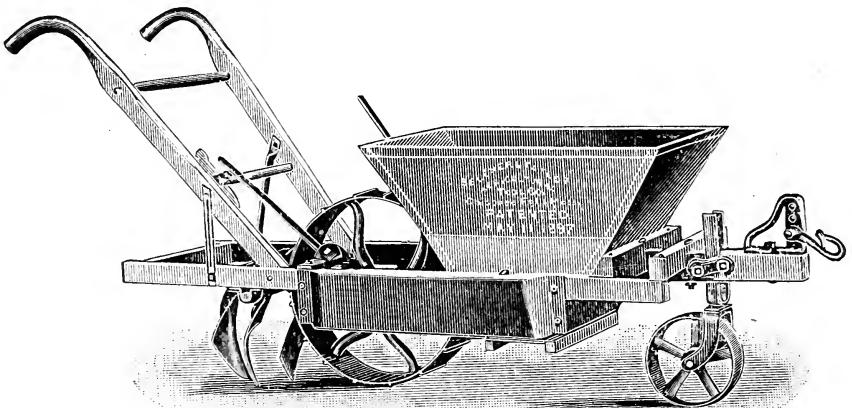
PERFECTION DRILL AND FERTILIZER SOWER



THIS machine will form a drill from 3 to 10 inches deep and will drop into the drill any fertilizer at the rate of 100 to 1,200 lbs. to the acre. The scrapers shown between the wheels are attached to the axle by sockets and are adjustable to any width and height needed to take the soil from the sides of drill and cover the fertilizer as desired.

In turning, the operator, by pressing down the handles, can easily raise the front end of machine from the ground and the horse will swing it into position. The row spacing attachment is simple, strong and leaves a plain mark for horse to follow. In turning, it can be swung up and held against the handle. The lever on right side throws the agitating cylinder into gear. The lever in rear of hopper shifts the bottom plate to give desired quantity of fertilizer to the acre. The adjustable stop on end of hopper will hold the lever where wanted. Price, \$30.00. **Net Cash Price \$28.00.**

BETWEEN THE ROW SOWER



For sowing fertilizers between rows or for doing other surface work, as some tobacco growers claim that a part of the fertilizing should be done after the first hoeing. The machine is made with wheel inside the frame, and covers a space of 12 inches wide with fertilizer. It has three cultivator teeth, adjustably attached to back end of machine for covering. Price, \$30.00.

Net Cash Price \$28.00.

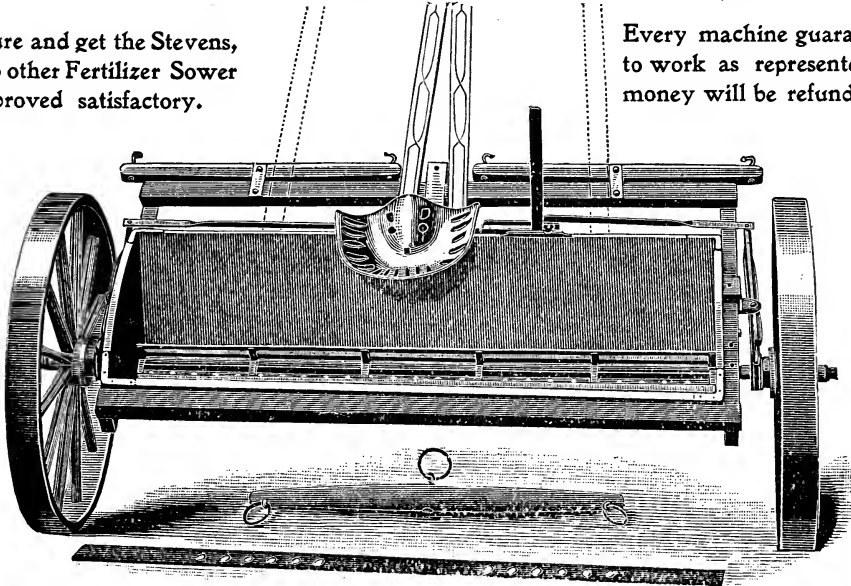
Stevens Fertilizer Sower

Combining Simplicity, Strength, and Durability.

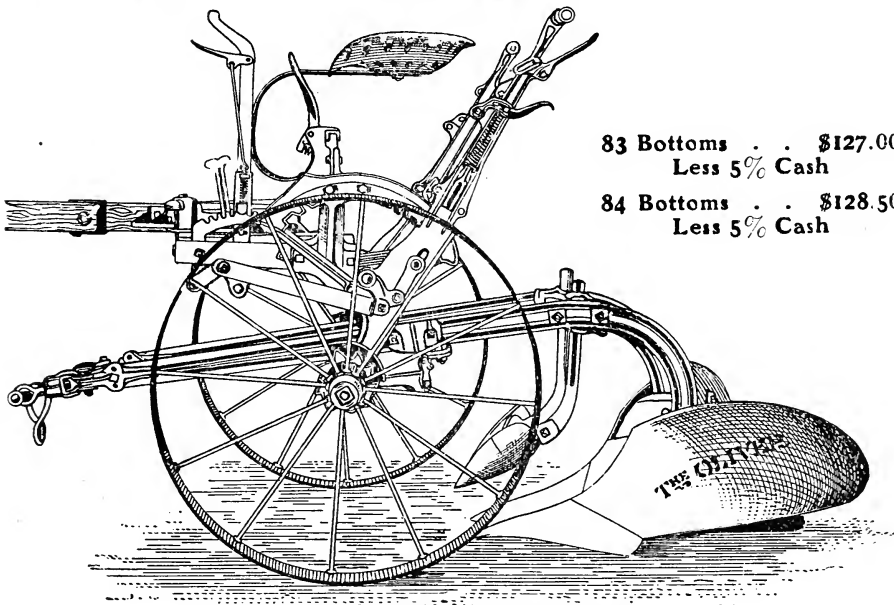
Made in Two Sizes: 5 feet, 10 inch, \$65.00 8 feet, 3 inch, \$70.00
 Net Cash 62.00 Net Cash 67.00
 3rd Plate extra on 5-10, 4.00 3rd Plate extra on 8-3, 5.00

Be sure and get the Stevens,
 as no other Fertilizer Sower
 has proved satisfactory.

Every machine guaranteed
 to work as represented or
 money will be refunded.



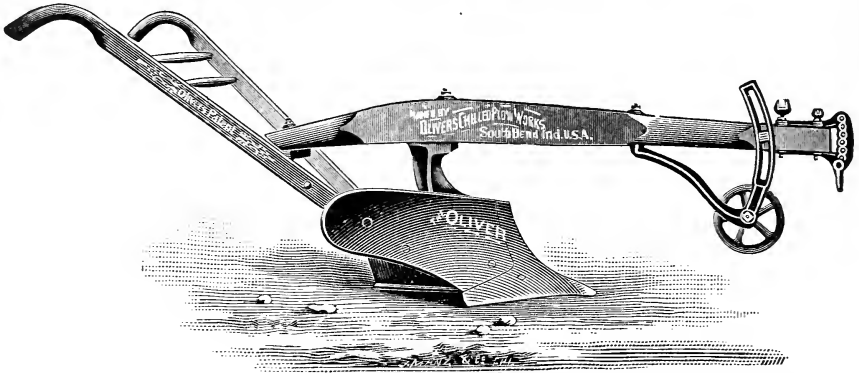
The Oliver Sulky Plow



83 Bottoms . . . \$127.00
 Less 5% Cash
 84 Bottoms . . . \$128.50
 Less 5% Cash

Complete with 2 and 3 horse hitch.

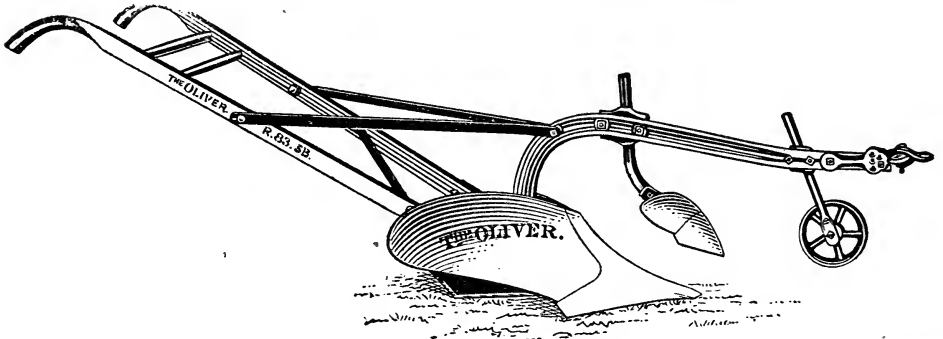
The Oliver Sulky Plow has come to be the most popular reversible two-way sulky sold in this section. During the past few years we have put into the hands of our best farmers several carloads of these plows. It has been one of the most satisfactory implements we have ever sold. You will make no mistake if you buy an "Oliver." The aim of the Manufacturer has been to produce a reversible sulky plow which should be more easy to manipulate than any thing else on the market.

The Genuine OLIVER Chilled Plow.

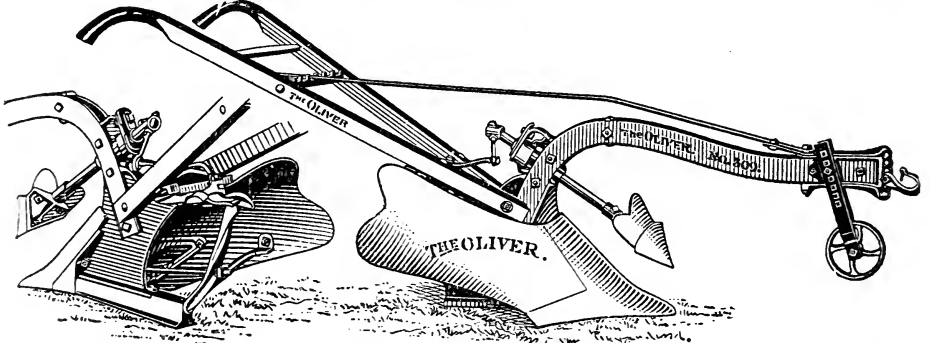
We are factory agents. The genuine Oliver plow and repairs are for sale in this section of Conn. only by ourselves, all others are spurious and cannot be relied upon to fit well or do good work.

The reputation of the Oliver plow is so well established that comment is unnecessary.

Price, No. 20, full trim,	-	-	\$23.50	Net Cash \$22.00
Price, No. E, full trim,	-	-	26.00	" 24.50
Price, No. 40, full trim,	-	-	27.00	" 25.50

A New OLIVER Chilled Plow.

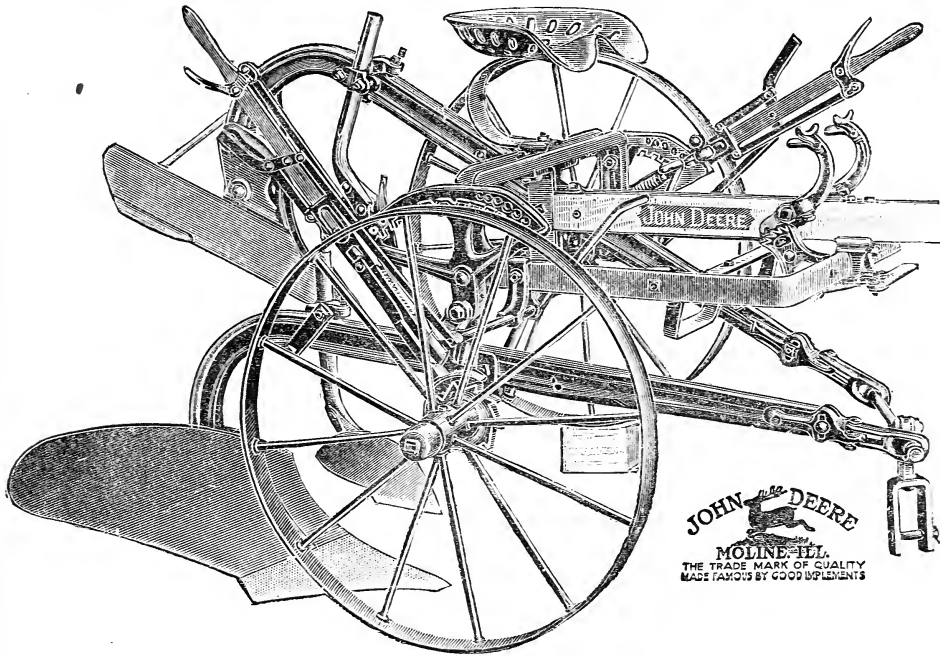
No. 83. A Medium 2 Horse Plow,	-	-	\$24.50	Net Cash \$23.00
No. 84. A Large Size 2 Horse Plow,	-	-	25.50	" 24.00



A New Reversible plow made especially for the Connecticut Valley trade. Our trade has long demanded a light weight reversible plow. This weighs but 140 lbs. Made both with chilled and soft cutter steel board.

No. 508. With chilled M board full trim,	-	\$27.00	Net Cash 25.50
No. 509. " " " " " "	-	28.00	" 26.50
No. 508. " Steel (Soft Center) " " "	-	29.00	" 27.50
No. 509. " " " " " "	-	30.00	" 28.50

The John Deere Two Way Sulky Plow



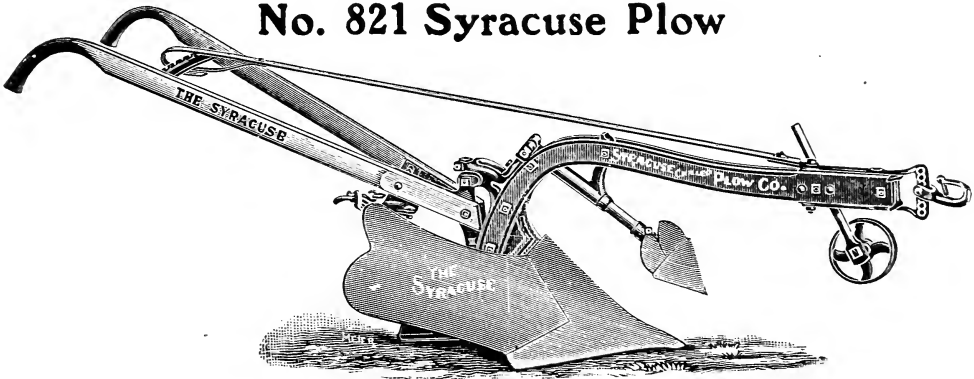
JOHN DEERE
MOLINE-ILL.
THE TRADE MARK OF QUALITY
MADE FAMOUS BY GOOD SUPPLEMENTS

Combined in the John Deere two way plow are a number of strong, valuable and distinguishing features. Among these are the patent auto foot frame shift, all steel and malleable frame and steel arch, long malleable beam clamp, automatic shifting hitch and horse lift, unusually wide bearing base and adjustable jointers. For hillside or irregular fields, where it is desirable to throw earth all one way, there is no equal to the two way.

Deere two-way Sulky Comb. 2 and 3 horse,

No. 1341 and No. 1441 Bottoms	\$128.50
With No. 1342 and No. 1442 Bottoms	127.00
Less 5% for cash.	

No. 821 Syracuse Plow



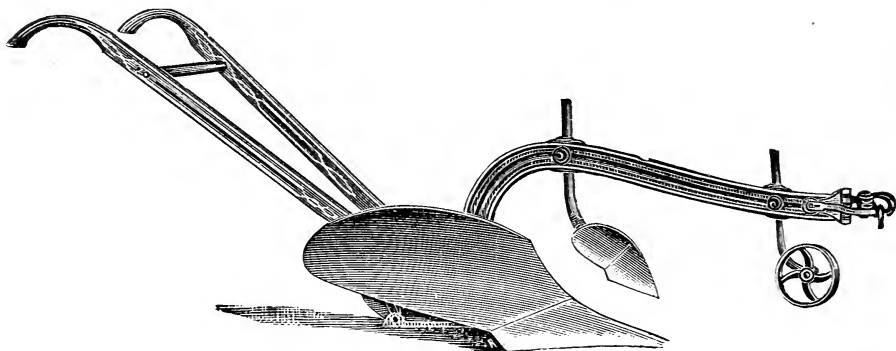
Price No. 821 Chilled full trim	\$28.00	Net Cash 26.50
" " 821 Steel Board	30.00	" 28.50
" " 822 Chilled full trim	27.00	" 25.50
" " 822 Steel Board	29.00	" 27.50

This is a truss beam plow combining lightness with strength.

No. 32 Syracuse Plow

With Steel Beam and Steel Mouldboard.

HAS NO SUPERIOR.



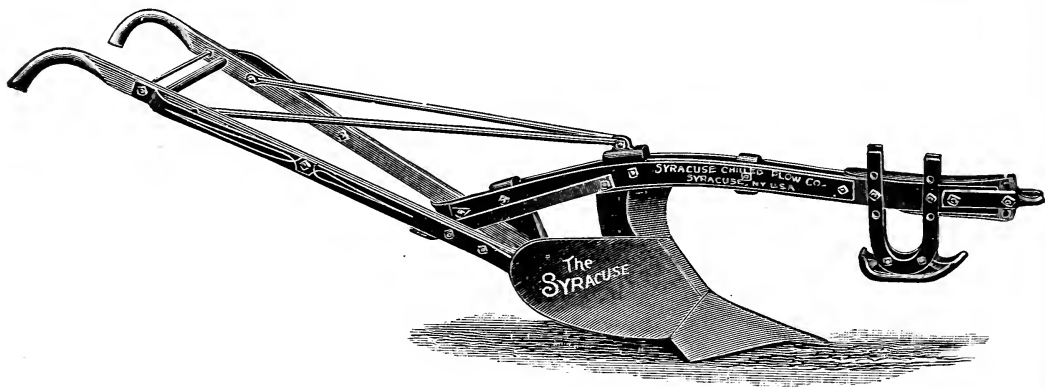
Workmanship and material of the very best grade and quality obtainable. Light, yet strong and durable, with superior turning qualities. Every plow fully warranted. Price, \$26.50.

No. 31 " 27.50.

Net Cash \$25.00

" 26.00

No. 99 SYRACUSE CONTRACTOR'S PLOW



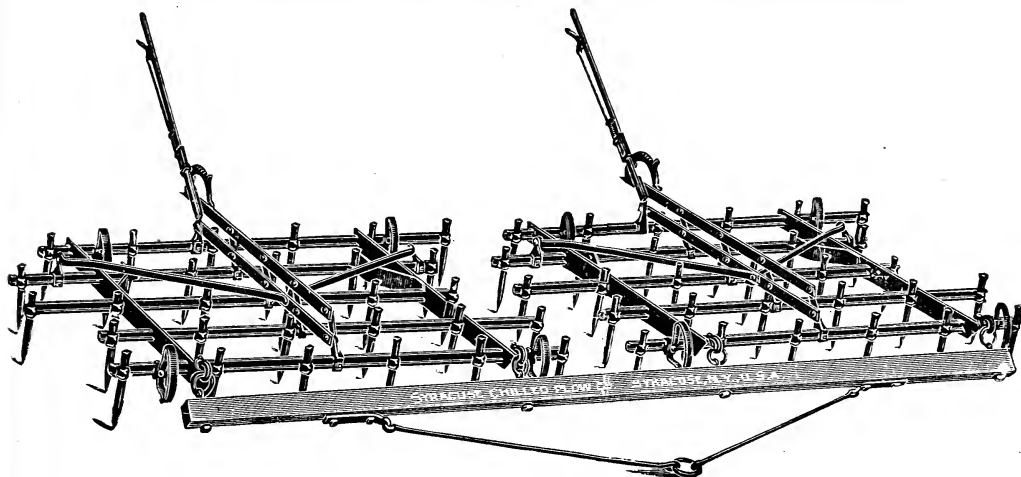
This has steel truss beam, steel mouldboard and landside, separate shin piece, heavy overlaid wrought steel share, adjustable shoe in place of wheel, loop handle wear irons, very strongly built, slight turning capacity. Suitable for severe grading purposes in shale or hard pan.

No. 99 Four to eight horses. Weight 310 lbs. Price \$60.00 Net Cash.

No. 98 Pavement Plow (Reversible Point) " 45.00 " "

No. 1 Contractor's Plow (Chilled) " 30.00 " "

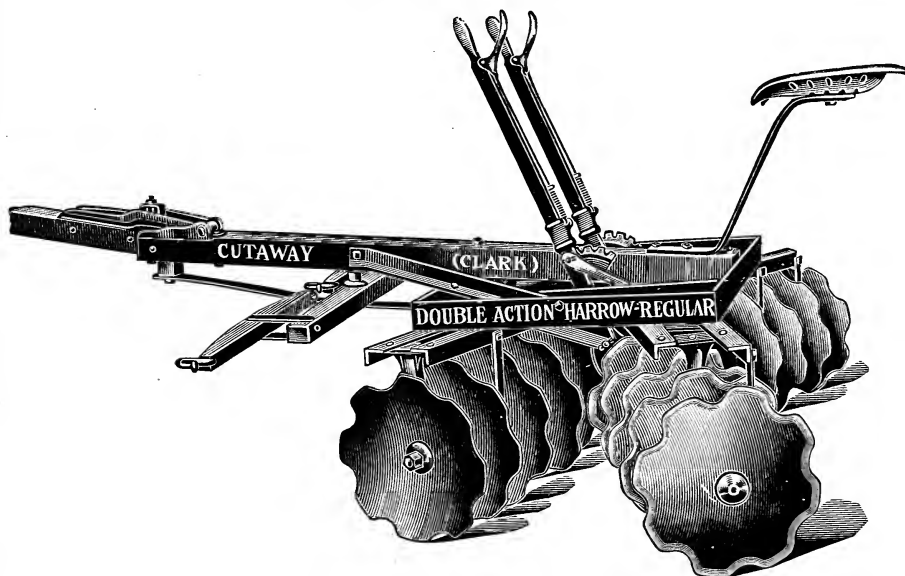
PEG-TOOTH LEVER HARROW



The teeth are $\frac{1}{2}$ inch extra heavy. Bars have malleable clips. Adjustable teeth.

2 Section (50 Teeth) with Spanner,	-	\$27.50	Net Cash Price \$26.00
2 Section (60 Teeth) with Spanner,	-	\$29.50	" 28.00

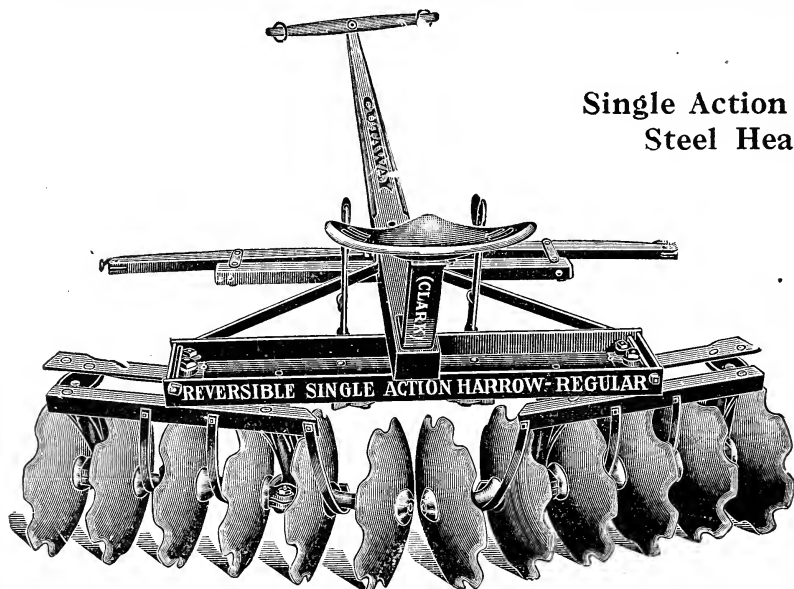
CLARK'S CUTAWAY DOUBLE ACTION HARROW.



The Cutaway Double Action possesses every feature that adds efficiency, convenience or adaptability and economy to a disc harrow.

A4—Regular 16-16 inch disc 4 $\frac{1}{2}$ ft. cut, 2 HH	.	.	Price \$72.00
A5— " 20-16 " " 5 $\frac{1}{2}$ " " 2 HH	.	.	" 84.00
3 H Hitch for above add \$2.50			
A6—Regular 24-16 inch disc 6 $\frac{1}{2}$ ft. cut, 3 HH	.	.	" 93.00
A6— " 24-16 " " 6 $\frac{1}{2}$ " " 4 HH	.	.	" 96.00
Discount for cash 5%			

CLARK'S CUTAWAY HARROW.



Single Action with
Steel Head

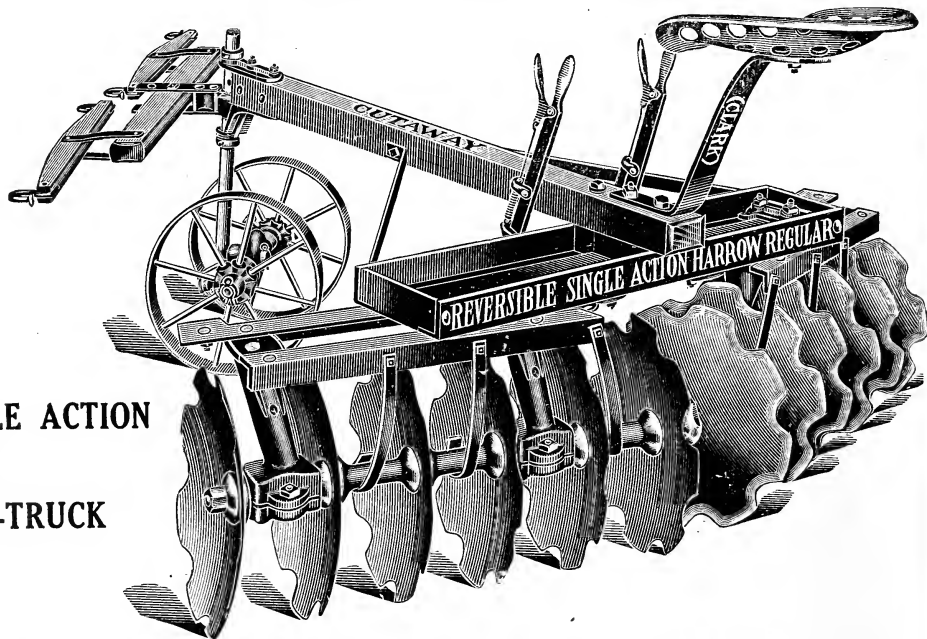
This is a standard harrow, thoroughly well made, equipped with the justly celebrated Clark hard-wood journals. These journals outwear metal, give less friction and are cheaper to replace.

Either solid or cut out discs

A6-12—Sixteen inch cut-out discs, complete with neck yoke and eveners, \$48.00

Net Cash Price \$46.00

SINGLE ACTION
WITH
FORE-TRUCK



The above cut shows the Clark cutaway Harrow equipped with tongue truck or fore carriage. This truck is all steel, durable and strong yet light; it has first, the adjustable hitch to meet the height of any team, second, adjustable tongue attachment to suit the height of any harrow; third, axle joint so that either wheel may run over clods, stones and other obstructions without affecting the even, regular draft of the harrow.

A6—Regular 12-16 inch disc,
Fore truck only \$10.00 Net Cash Price \$9.00

Price complete, \$56.00
Net Cash Price \$54.00

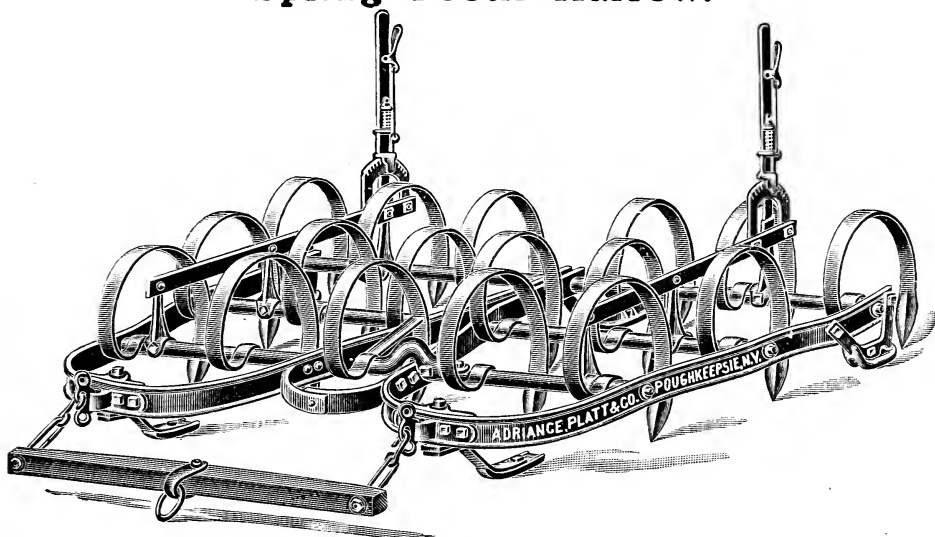


Farm of R. J. Devitt, Spencer Hill, East Hartford, Conn. A fine crop of Seed Leaf ready for harvest. Mr. Devitt has been a user of our Fertilizers for many years.



Who wouldn't like to cut tobacco on the farm of Mrs. O. P. Carroll, So. Windsor, Conn. Note the handsome boys in the foreground. For many years Mrs. Carroll has been a customer of Olds & Whipple.

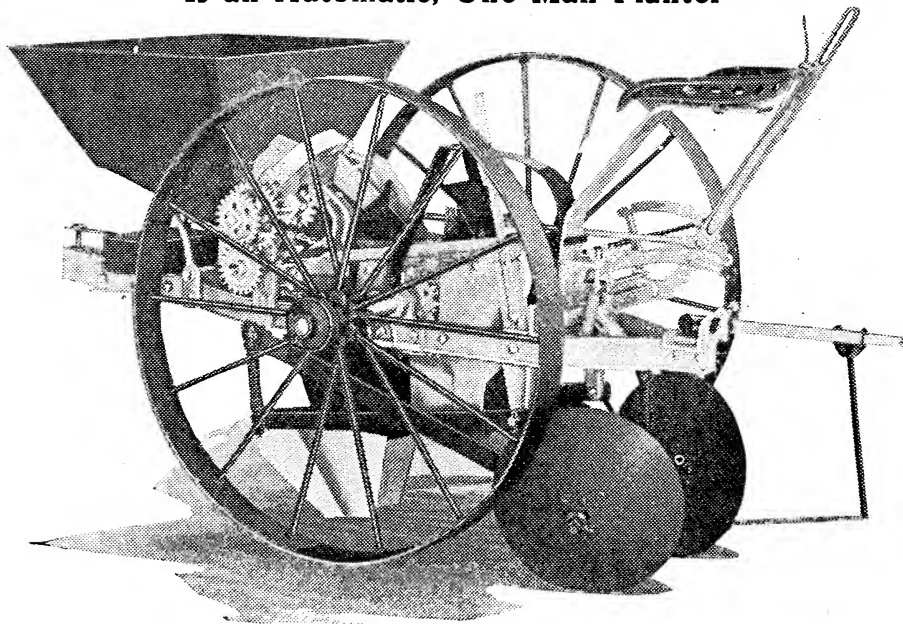
Spring Tooth Harrow.



This is not a cheap tool, either in construction or price. It is for the man who wants the best and most satisfactory. The frames are of heavy channel steel, two inches wide. As the frames are carried high above the ground, they will last a lifetime.

Price for 15 Tooth	-	-	-	\$32.50	Net Cash Price
" 17 "	-	-	-	34.50	\$31.00
Price of 17 tooth Riding Harrow with wheels and seat	-	-	-	40.00	33.00
					38.50

The Hoover No. 400 Visible Potato Planter Is an Automatic, One Man Planter



This planter was designed to meet the general demand for a strictly high-grade, up-to-date potato planter, one that would be just as satisfactory for planting potatoes as the "Hoover" Potato Digger has proved for digging them.

The fertilizer attachment is designed to meet the varied requirements of potato growers, as it will put the fertilizer either below or above the seed, as the operator desires.

Price Complete, with Fertilizer Attachment,

\$165.00
Net Cash Price, \$160.00

ACME

Pulverizing Harrows.

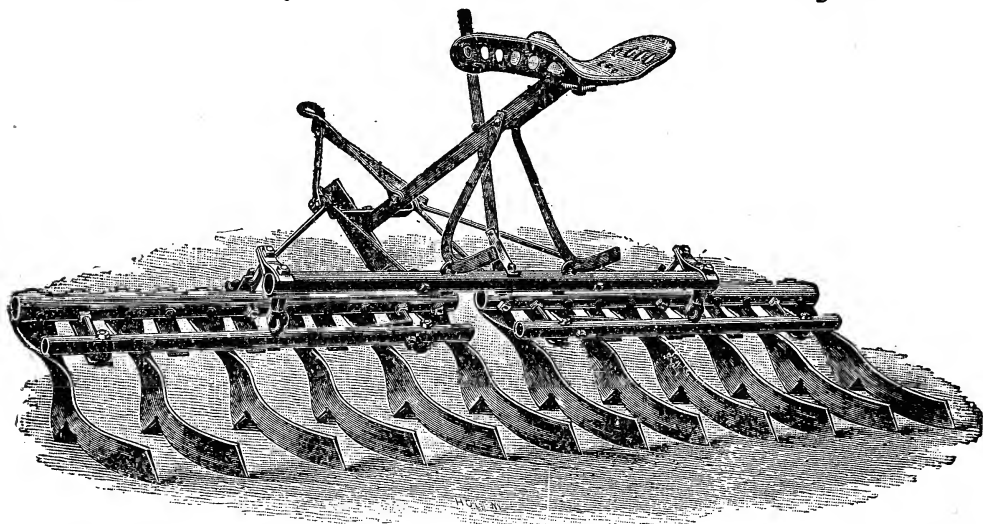
Warranty. I hereby warrant each and every part of each and every "Acme" Pulverizing Harrow against breakage for the term of one season after it leaves the manufactory or any of my storehouses, and I hereby authorize Agents and Dealers to FURNISH FREE NEW PARTS TO REPLACE BROKEN PARTS; the only stipulation being, that the farmer demanding such parts shall sign a statement that the breakage occurred in fair usage, which statement shall be countersigned by the Agent or Dealer from whom the Harrow was purchased.

DUANE H. NASH, Manufacturer.

No. 23.

*Two-Horse Size.
Works 6½ ft. Wide.*

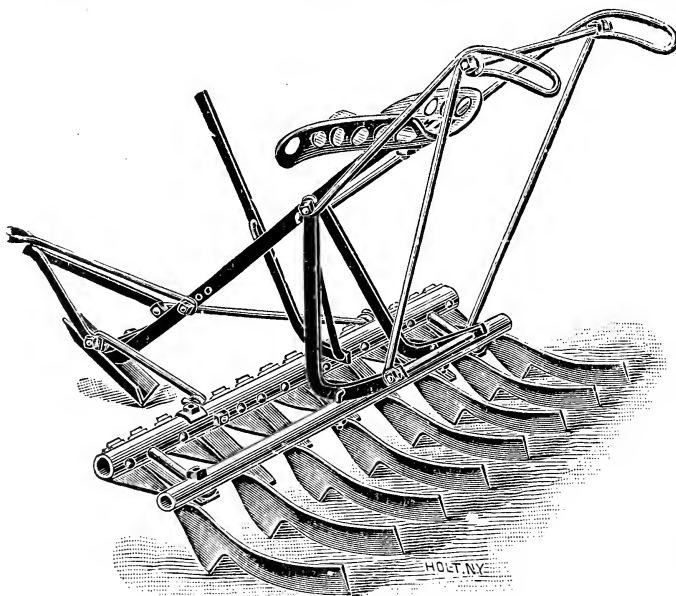
*Riding Harrow.
Flexible Style.*



The gang bars may be made rigid, when desired by means of braces provided for that purpose.

Price of No. 23, (two-horse style), \$31.00

NET CASH PRICE \$29.00.



Size H.

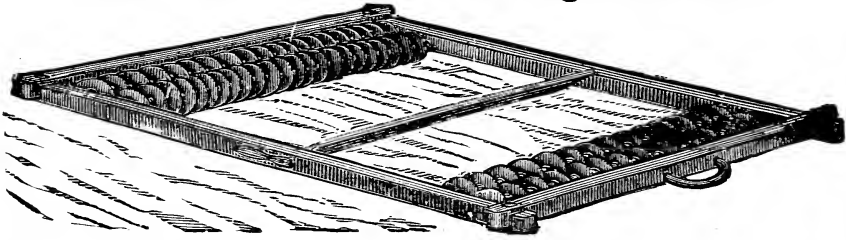
For One Horse

Size H is built on the same plan as No. 23. Has eight Colters, also Crushing Spurs. Works about 4 feet, 4 inches wide, weighs about 90 lbs.

Price, \$22.00,

Net Cash Price \$20.00

The Meeker Smoothing Harrow.

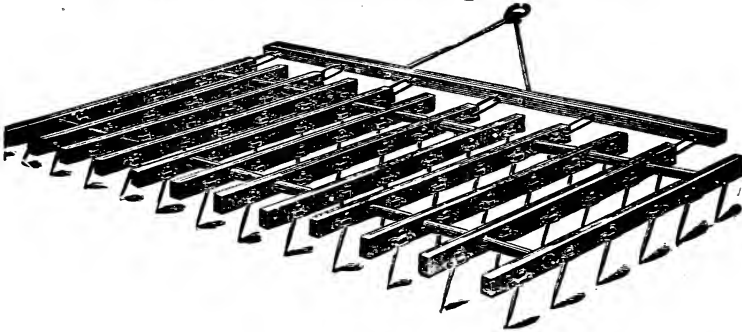


A perfect harrow and land roller combined. This harrow has become a great favorite among all classes of farmers and market gardeners.

It has four (4) sets of rollers containing 58 steel discs. These discs grind all lumps and save the work of raking and also mash small stones below the surface better than any field roller, leaving the land smooth and level.

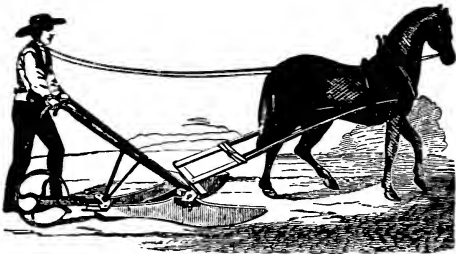
8 in. disc Harrow \$36.00 **Net Cash 34.50** 10 in. disc Harrow \$41.00 **Net Cash 39.50**

Clipper Smoothing Harrow



The teeth are $\frac{9}{16}$ in. round, and are attached to bars by malleable clasp, and are so arranged that by hitching to one end of harrow the teeth pull slanting as shown in cut, by hitching to other end the teeth pull straight. Wood frame.

Price 1 section	\$ 9.50	\$ 9.00 Net Cash
" 2 "	18.75 (including spanner)	17.75 "
" 3 "	29.00 " "	27.50 "



Goslee's Potato Ridger and Tobacco Coverer

Price, Plain \$17.50

Net Cash \$16.50

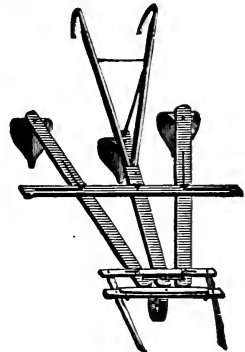
Goslee Improved Field Marker

(Spread 2 to 4 feet)

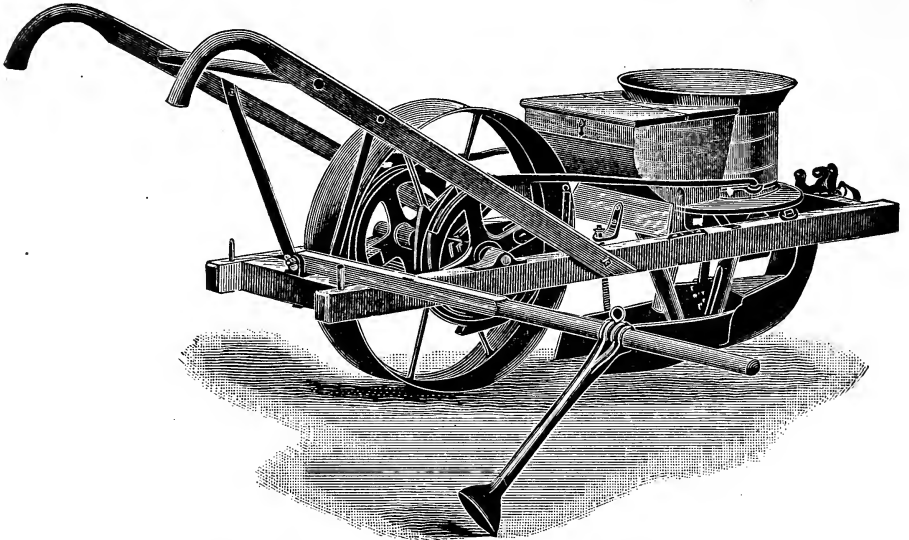
This machine is designed to mark out rows any width for any crops grown in rows. Teeth are adjustable to any size and depth drill.

Price, \$15.00

\$14.00 Net Cash Price



"KING OF THE CORNFIELD"



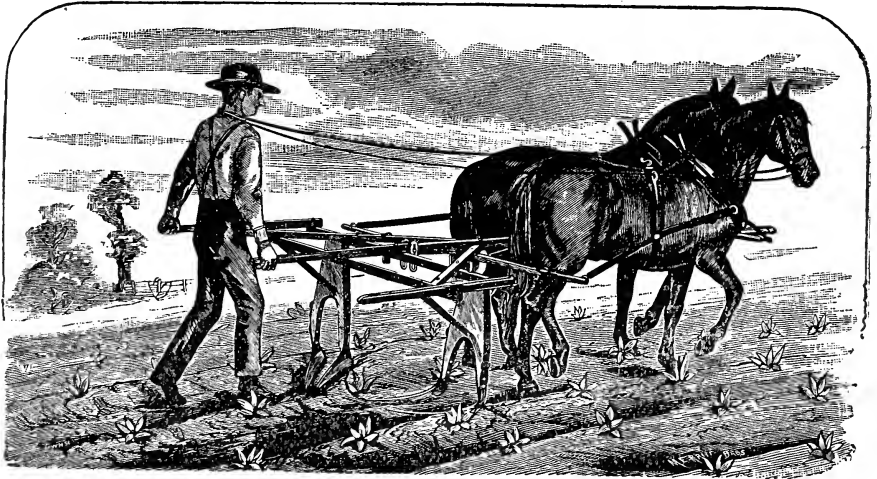
Price \$38.00

Net Cash Price \$36.50

Corn, Bean and Pea Planter and Fertilizer Distributor

Every machine is warranted to be well made of good material, and guaranteed to do its work perfectly and satisfactorily with the different kinds of seeds, as we claim, if used according to directions.

Prout's Hoeing Machine



Unlike the Cultivators and Horse Hoes now in common use the whole surface or distance of 2 ft. more or less, on each side of plant is cut over with this machine, all the weeds are removed. The hoe steels being made tapering permit of cutting close up to plant without injury to the roots.

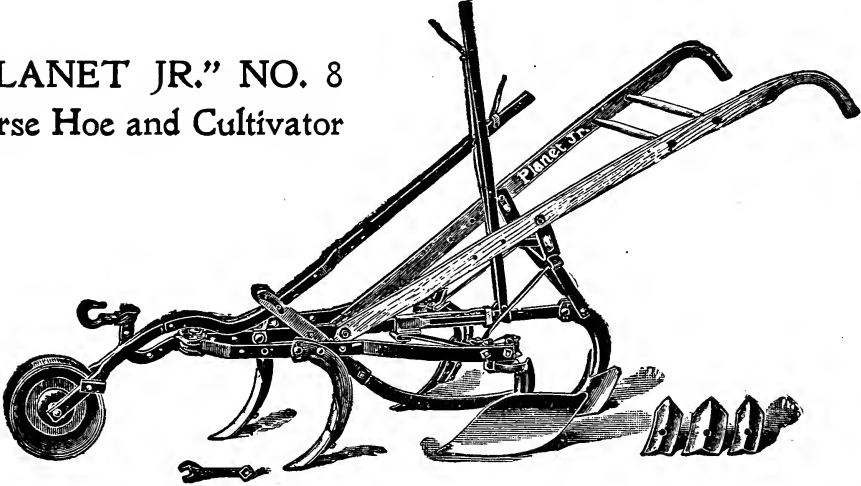
Price, plain \$27.00
Net cash price 25.00

Price, with wheels \$30.00
Net cash price 28.00

THE "PLANET JR" HORSE TOOLS

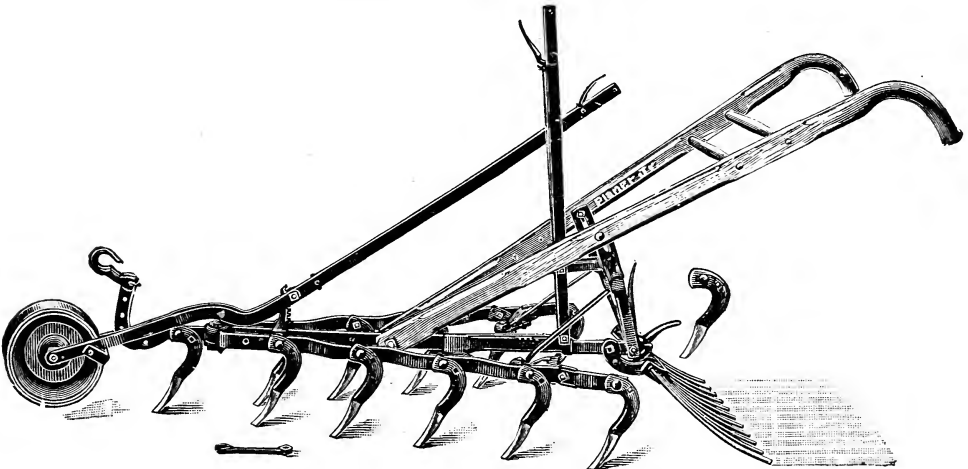
Complete Descriptive Catalogue Sent on Application

"PLANET JR." NO. 8 Horse Hoe and Cultivator



- No. 8—With Depth Regulator, Lever, Steel Wheel and Lever Expander, - Price, \$20.75
 No. 7—Same as No. 8, except it has no Depth Regulator, - - - Price, 19.50
 No. 9—This tool is identical with the No. 7 Horse Hoe, but it has a plain wheel instead of one operating by a convenient lever, - - - Price, 17.75

The "PLANET JR." Twelve Tooth Harrow, Cultivator and Pulverizer



The above is a great labor saving tool. Try one and be convinced of its superior qualities. No farmer should be without one.

Price, plain, \$13.00

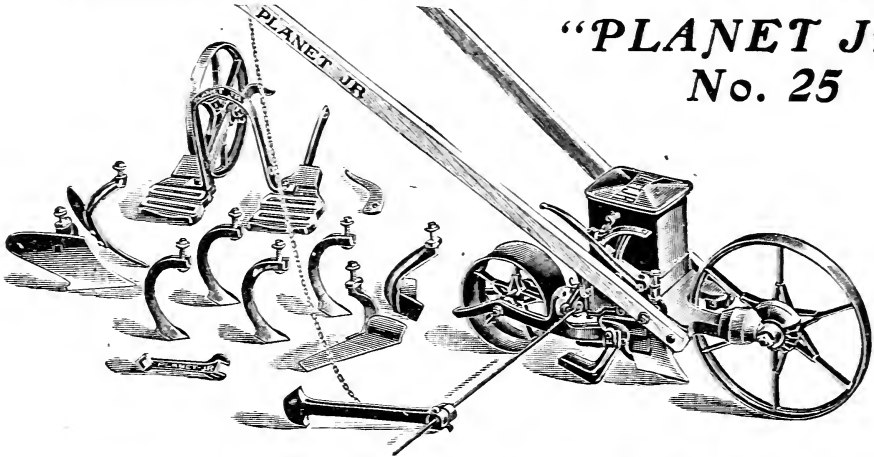
With Wheel, \$17.50

Complete, \$20.75

We sell as an extra an eighteen and twenty-four inch Sweep, with special standard which is used in place of the pulverizer for leveling and weed cutting. It is adjustable in height. Furnished in place of pulverizer if desired.

"Planet Jr." Farm and Garden Tools

"PLANET Jr." No. 25



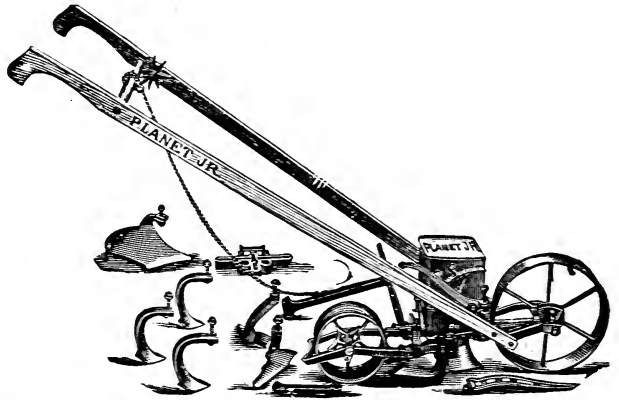
Hill and Drill Seeder and Double Wheel Hoe.
Price, \$23.25

"PLANET JR." No. 4

Combined Hill and Drill
Seeder, Wheel Hoe, Culti-
vator and Plow.

PRICE, complete, - - \$20.50
" as a drill only, - 16.50

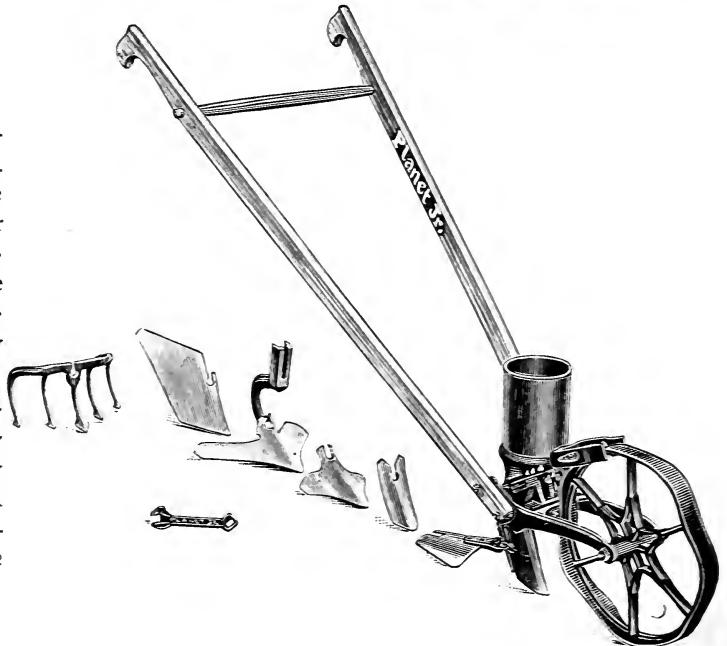
This is a prime favorite with all gardeners, especially those who while not having a large acreage, derive a lot of pleasure in using a Combined Seeder and Cultivator of this kind in caring for the home garden.



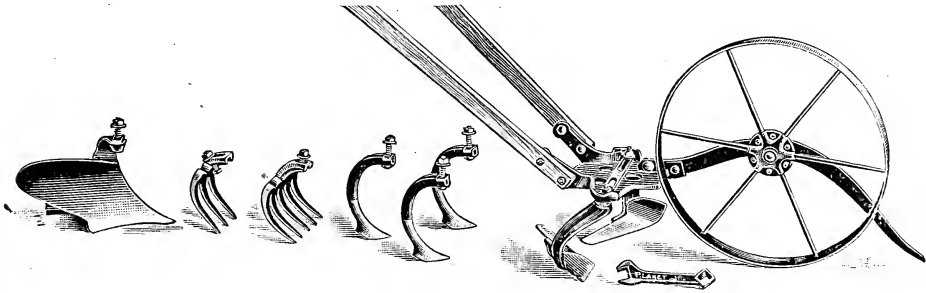
"PLANET JR." No. 31

Combined Drill Seed-
er and Wheel Hoe.
Price \$13.50 complete
Price as a Drill Seeder
only, \$10.75 (No. 31D).
Price as a Wheel Hoe
only \$6.75 (No. 33).

This is a thoroughly well made machine and will sow even a small packet of any garden seed at any thickness desired with the greatest precision from $\frac{1}{4}$ to 2 inches deep.

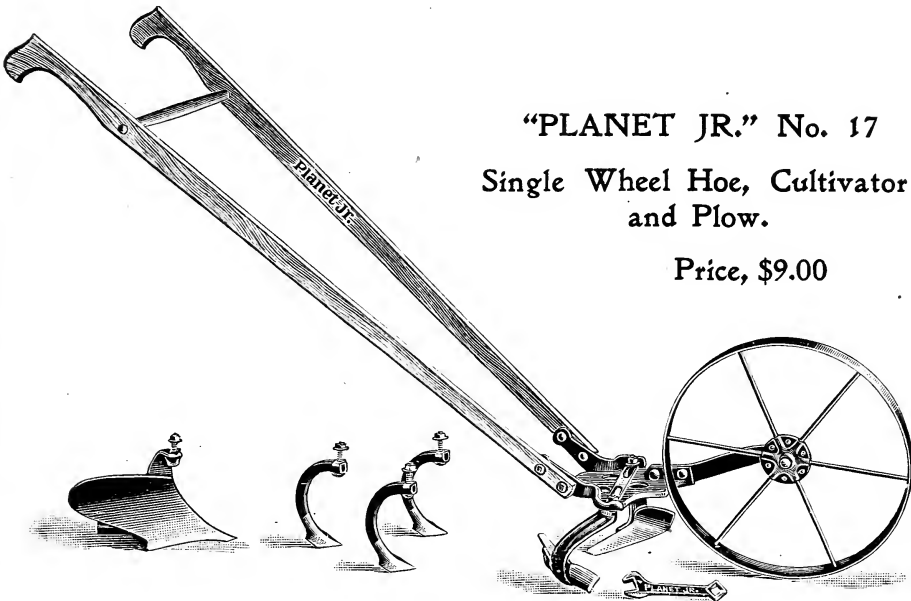


"PLANET JR." NO. 16 Single Wheel Hoe, Cultivator,
Rake and Plow **Price \$11.00**



"PLANET JR." No. 17
Single Wheel Hoe, Cultivator
and Plow.

Price, \$9.00



No. 17½ "PLANET JR." Single Wheel Hoe
(Same as No. 17 less Plow)

Equipment:

1 pair six-inch hoes	} all steel tempered
3 steel cultivator teeth	
1 leaf lifter	

PRICE, \$7.75

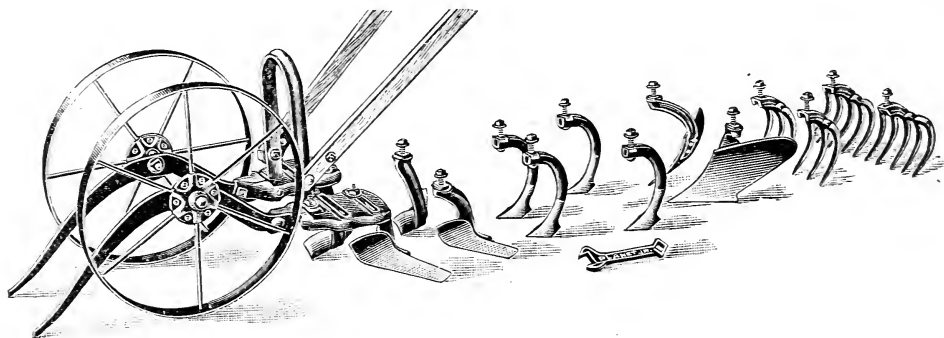
No. 18 "PLANET JR." Single Wheel Hoe

Equipment:

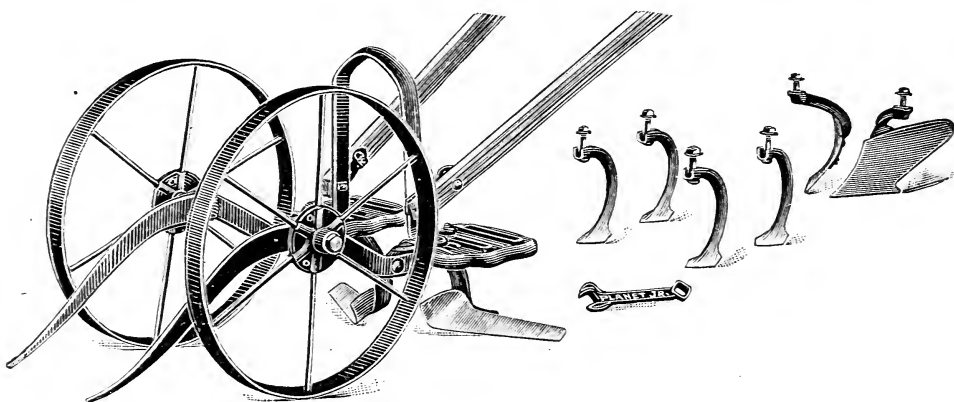
One pair six-inch hoes, oil tempered

PRICE, \$6.25

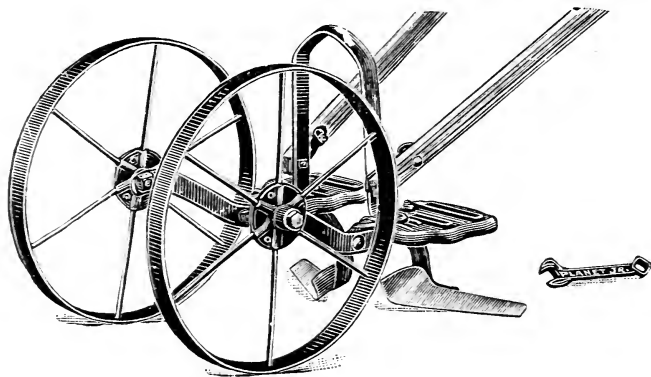
**THE "PLANET JR." No. 11 Double Wheel Hoe, Cultivator,
Rake and Plow. Price \$16.50**



**THE "PLANET JR." No. 12 Double Wheel Hoe, Cultivator
and Plow. Price \$13.50**

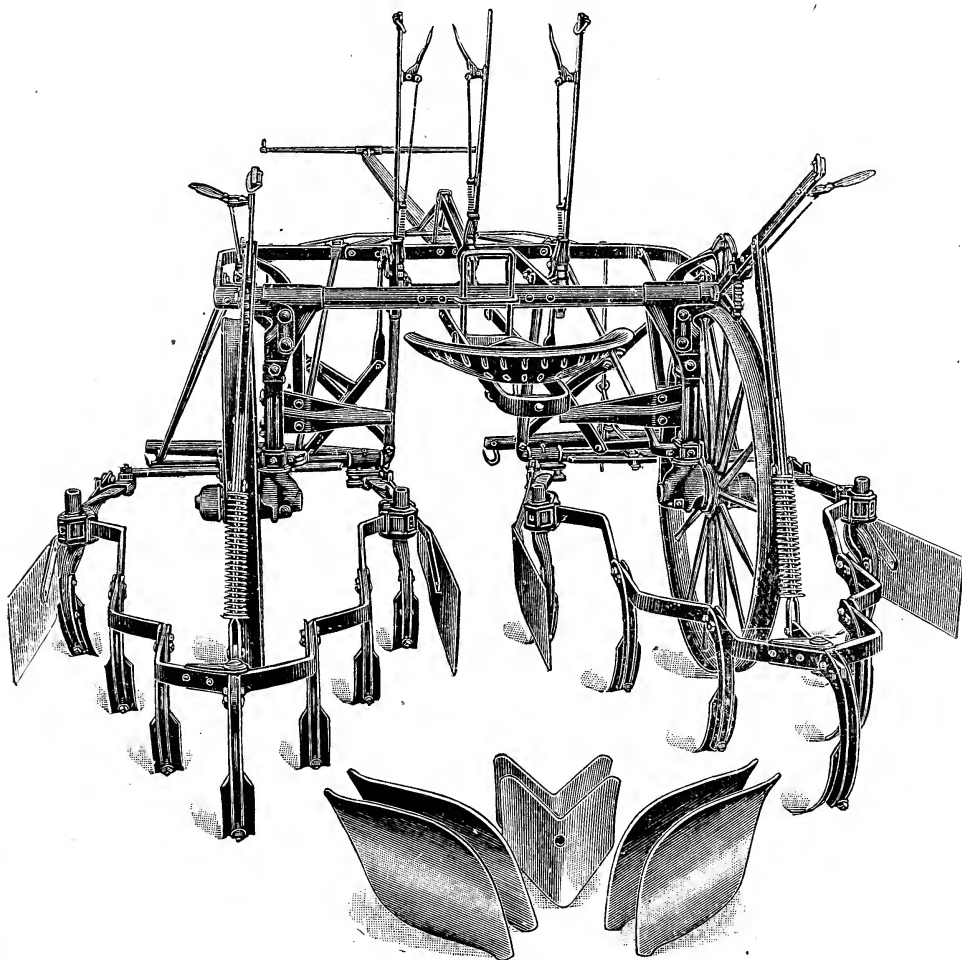


The "PLANET JR." No. 13 Double Wheel Hoe. Price \$9.50



Send for
Special Catalog
"Planet Jr." Tools.

"PLANET Jr." No. 72
TWO ROW PIVOT WHEEL RIDING CULTIVATOR,
PLOW, FURROWER and RIDGER



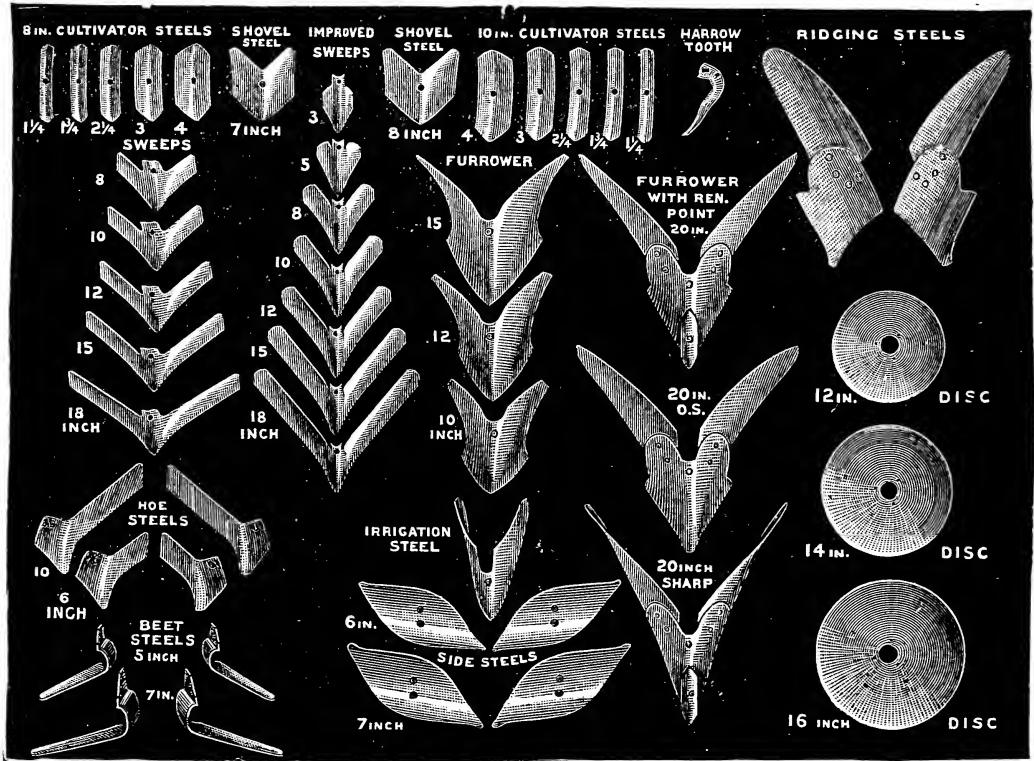
EQUIPMENT:—	14 Cultivator Teeth	2 8 inch Shovels
	4 Reversible Plows	4 Plant Guards

Price Complete with Roller Bearings, \$130.00

The No. 72 "Planet Jr." Two-row is the highest type of two horse cultivator.

It completes two rows at one passage, all widths from 28 inches to 44, inclusive, and is specially built to do this when the rows are irregular, for the operator can change the width apart of gangs while in motion to suit varying rows, by means of convenient levers. Important improvements have been made recently.

"PLANET JR."



Varieties of Steel Plates made for the "Planet Jr." Horse Hoe.

The 1 1/4 inch steels throw almost no furrow, and run very deep, yet work beautifully as cultivating teeth and subsoilers, very desirable where the soil is to be broken up thoroughly without hilling, as where the ground is clean, but beaten down by rains, or baked by the sun. The next two sizes, 1 3/4 and 2 1/4 inch, are desirable for general cultivation, and do superior work in hard lands. The next is 3 inch; this is the size, with one 4 inch for the rear standard, which is sent out with the Horse Hoe, unless otherwise ordered, being best adapted to general work in all kinds of soil.

1 1/4 inch Steels,	. . .	\$0 23	12 inch Improved Sweeps,	. . .	.89
1 3/4 " " "	. . .	.27	15 " " "	. . .	1.02
2 1/4 " " "	. . .	.29	18 " " "	. . .	1.32
3 " " "	. . .	.33	24 " " "	. . .	2.55
4 " " "	. . .	.38	Fingered Sweep and Bolt,	. . .	1.36
7 " Shovel Steel,	. . .	.54	6 inch Side Steels, each,	. . .	.94
8 " " "	. . .	.59	6 " Hoe Steels,	. . .	.85
Bolts,	. . .	.05	10 " " "	. . .	1.08
8 inch Sweep (regular)	. . .	.62	10 " Furrower,	. . .	1.50
10 " " "	. . .	.68	12 " " "	. . .	2.00
12 " " "	. . .	.77	15 " " "	. . .	2.50
15 " " "	. . .	.85	20 " Furrower, old Style,	. . .	
18 " " "	. . .	1.12	with wings	. . .	3.80
24 " " "	. . .	2.00	20 " Furrower, new style	. . .	4.25
8 inch Improved Sweeps,	. . .	.70	Ridging Steels, each,	. . .	2.35
10 " " "	. . .	.80	Pulverizer for Harrow Special,	. . .	3.50

Improved Sweeps do not fit Horse Hoe Side Standards.

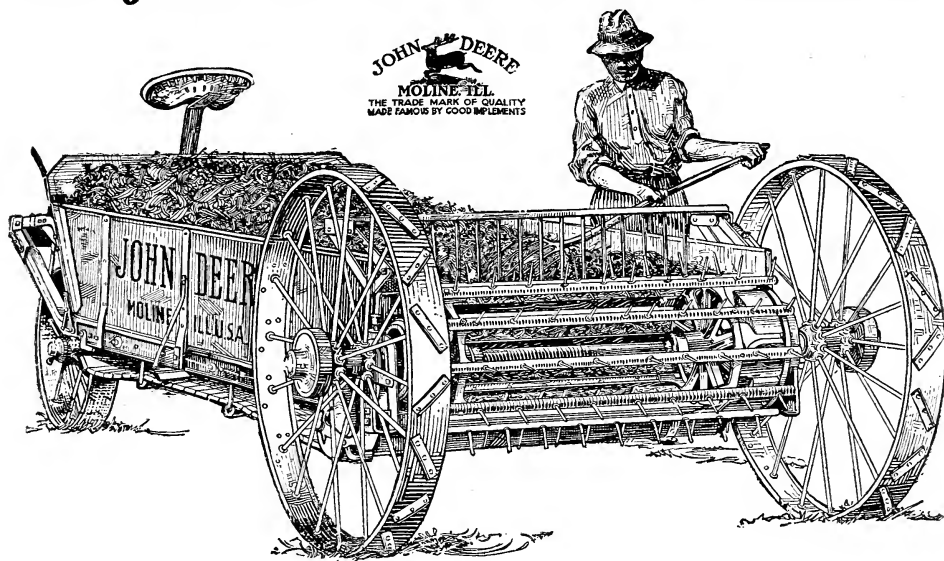


Crop of Seed Leaf ready for harvest on the farm of J. J. Futtner, Burnside, Conn.
Mr. Futtner has for many years been a loyal customer of ours.



A very fine crop of Seed Leaf on the farm of Mr. Sherman Fox, Hockanum, grown
on Olds & Whipple's Fertilizers.

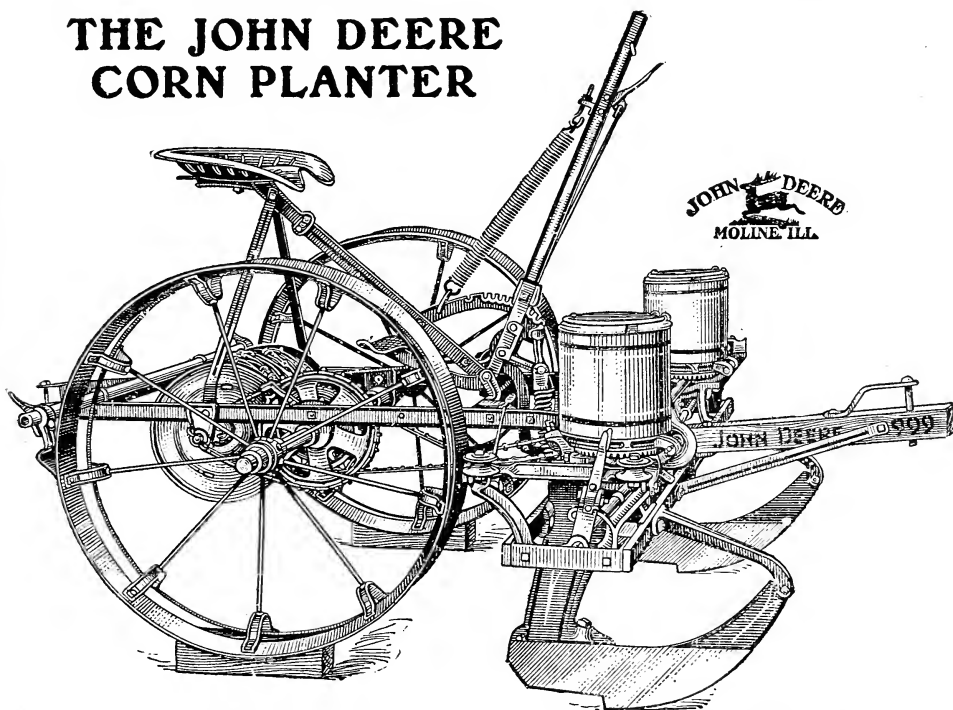
THE JOHN DEERE MANURE SPREADER



The low down Spreader only 36 inches from the ground to top of the box making it very easy to load. The beater is made entirely of steel and is mounted on the axle doing away with unnecessary chains and gears. An endless apron with patented apron drive prevents racing of the apron under all conditions. It is very simple to operate, has only two levers and turns in its own length.

Size "B" 40 Bushel. Price \$225.00. Net cash \$220.00.

THE JOHN DEERE CORN PLANTER

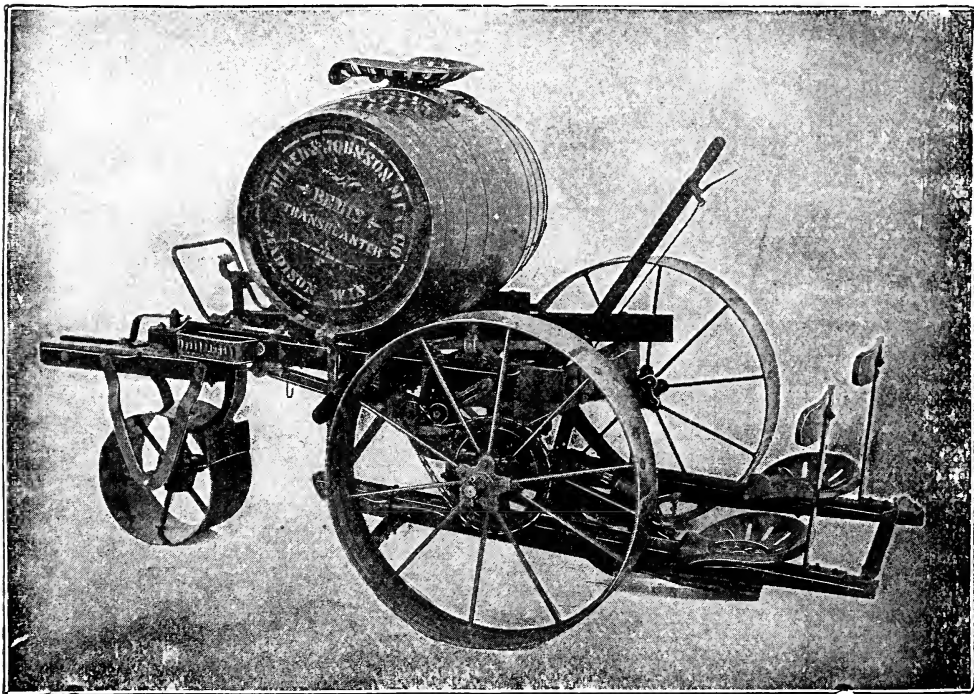


Accuracy in planting has been the main object in designing the John Deere No. 999 Corn Planter. The advantage in using this planter is with proper handling it will plant the desired number of kernels in each hill. Every one of these machines is rigidly inspected before leaving the factory. The change from hilling to drilling or vice versa is instantly made. No extra attachments or tools are required.

Complete with check rower and fertilizer attachment. Price \$120.00. Net cash \$115.00.

Less check rower. Price \$110.00. Net cash \$105.00.

The Bemis Transplanter.



For Setting Tobacco and Other Plants

The above is the well known Bemis Transplanter made by Madison Plow Co. of Madison, Wis., with all improvements to date.

This machine is too well known to need any endorsement from us. Nearly every tobacco farm in the Connecticut valley is equipped with one of these implements.

Price, \$112.00. 5% Discount for Cash

Equipped with Double Truck \$2.00 Extra Net

Use O. & W.'s Special Tobacco Fertilizer.



The Iron Age (Improved Robbins) Potato Planter

Price \$155.00

No. 400R. with regular
Fertilizer Distributor
and Shield Plow

Discount per Cash 5%

A Planter that does not injure the seed as it is all handled automatically.

A Planter that places every seed piece exactly as you want it. A Planter that sows fertilizers at the same time, but none of it where it touches the seed.

The IRON AGE Four Row Sprayer



You cannot raise Potatoes successfully unless you Spray

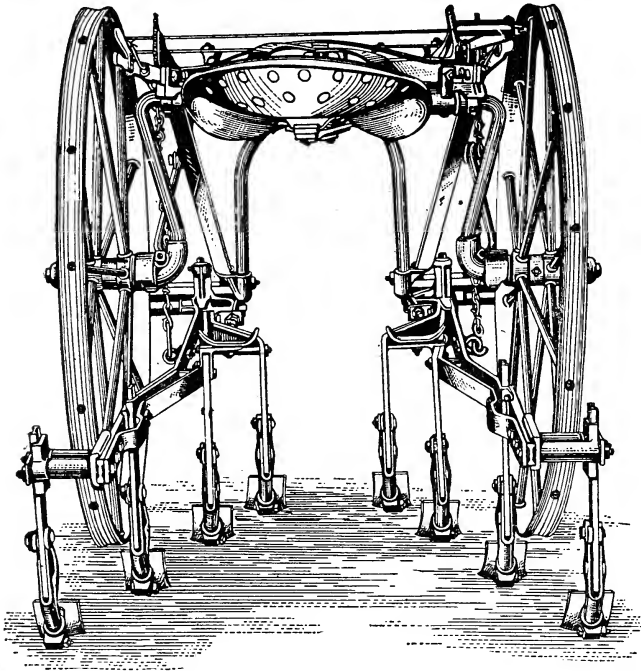
Price \$182.00

Discount for Cash 5%

No. 354S 4 Row 55 gal. tank

Shafts—Duplex Pump—Wind Shift—Nozzle Strainer

The John Deere Riding Cultivator



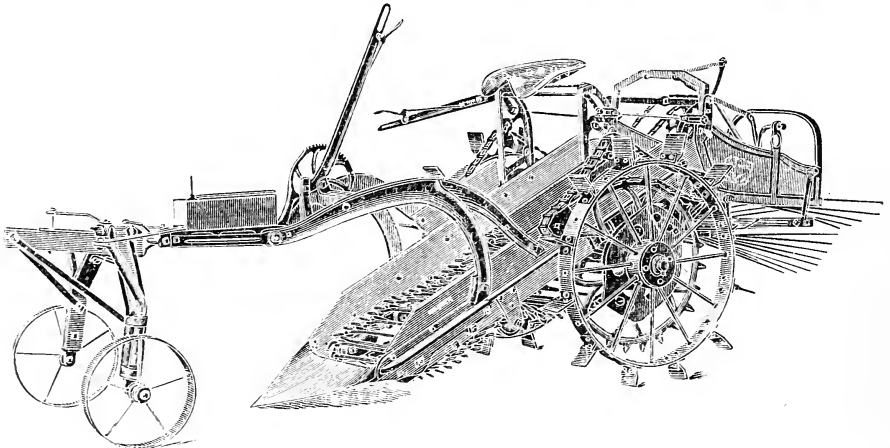
**K C 156 Spring
Trip
Eight Shovel**

This new Implement has assumed a most commanding position in the Cultivator trade because it embraces new ideas and improvements which make it easy to handle and capable of doing finer work than any other machine offered to the public.

Price \$77.50

Net Cash Price \$75.00

THE HOOVER POTATO DIGGER



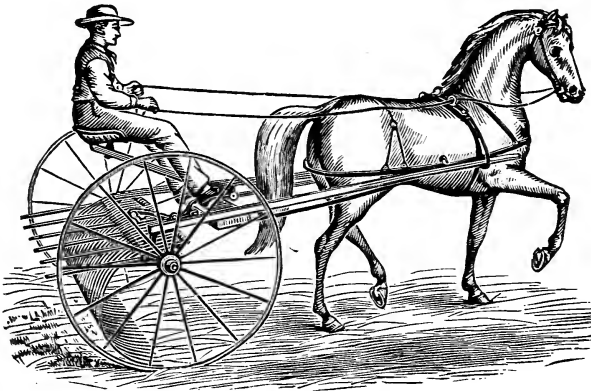
This Potato Digger has become the standard of excellence everywhere. It is now used more largely in the potato growing section of Maine than any other make.

It separates the potatoes from the vines and weeds leaving them in a clean narrow row. Two horses will handle the machine under ordinary conditions. It is a great labor saver.

Price \$175.00

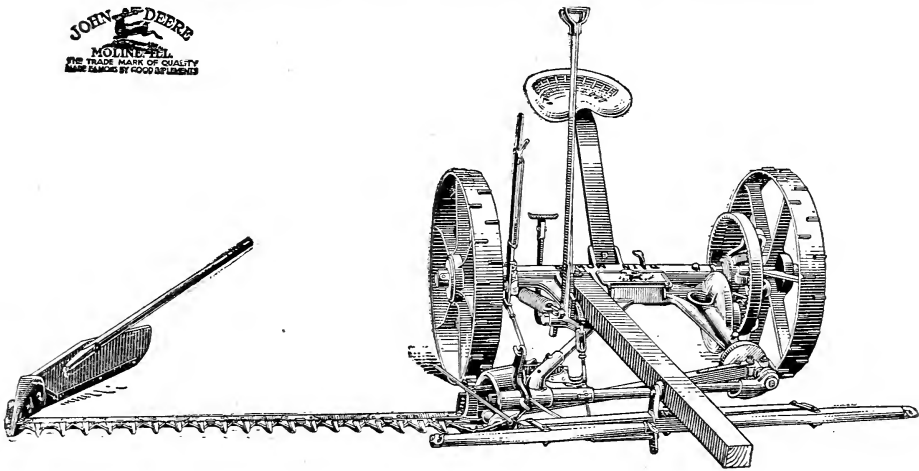
Net Cash Price \$170.00

HAY RAKES



The Yankee Rake (wood)	\$45.00	\$43.00 Net Cash
The Wiard Rake (wood)	45.00	43.00 Net Cash

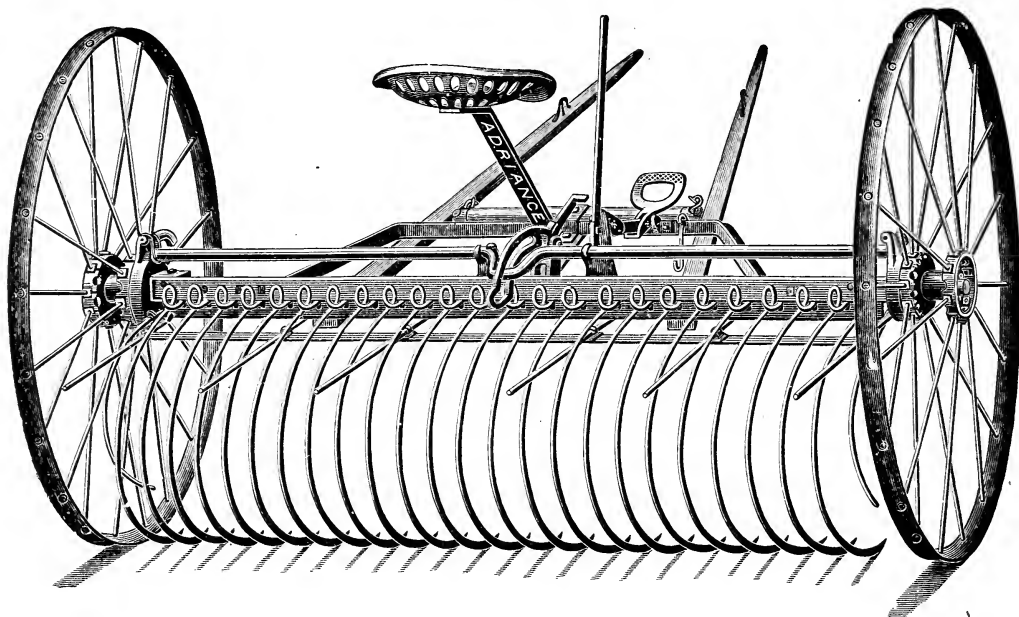
The John Deere-Dain Mower



This mower is noted for its strength, durability, light draft, ease of management and superior cutting power. Frame is one piece of iron—all parts are held securely. Compensating gears remove strain from bearings and transmit instead of consume power. All levers are easy to operate, and a boy can readily handle them. The knives can be closely and accurately adjusted to center in their guards, doing away with knife breakage and making easy cutting.

5 Ft. Vertical Lift	.	Price \$95.00	\$92.00 Net Cash
5 " Giant	.	97.00	94.00 " "

The MOLINE (All Steel) Self-Dump Rake

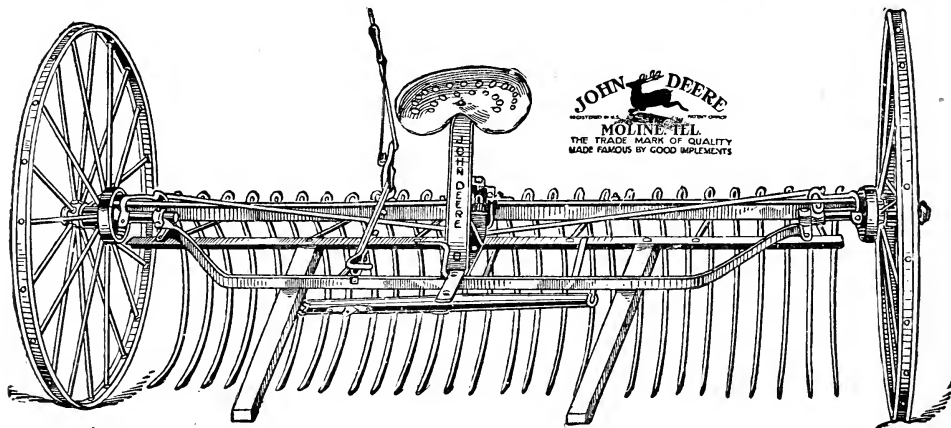


DO NOT BE MISLED. There is but little difference in the general appearance of Rakes, yet one may be very superior, both in utility and durability than another. This is a superior rake and we can give you reasons why it is so.

Price \$49.50

\$47.50 Net Cash

JOHN DEERE STEEL SULKY RAKE



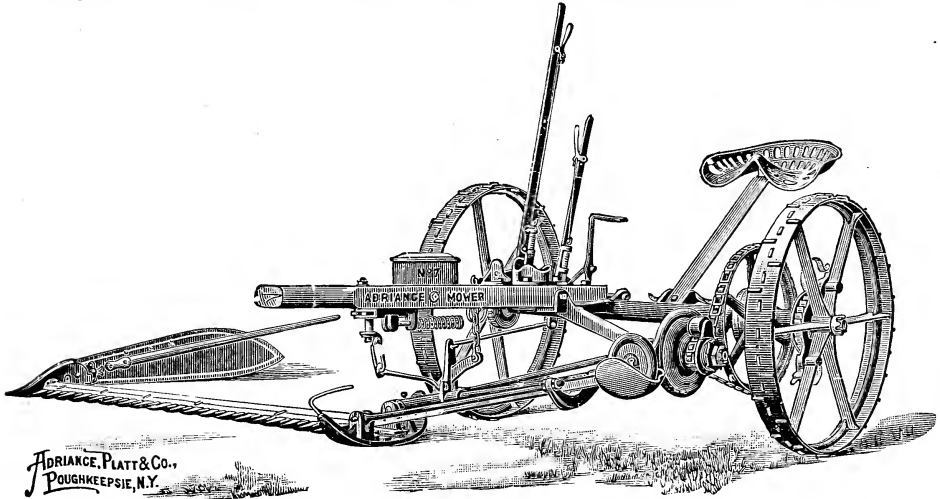
Designed and constructed to do every class of work required of a Sulky Rake in an efficient and satisfactory manner. This rake is simple, strong and durable. By making the principal working parts reversible, the life of a John Deere rake is practically double that of the ordinary.

8 Foot 26 Tooth

Price \$50.50

\$49.50 Net Cash

Try A New York Moline Buckeye Mower



The best method of draft for a mower ever invented is the Moline "Spring Draft."

In all work it produces more uniform and *lighter* average draft, and secures other even more important advantages.

We have them from 3½ ft. to 6 ft. size.

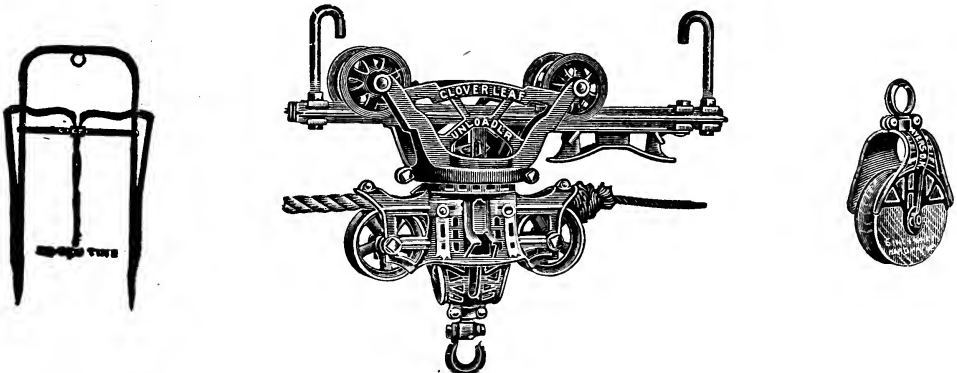
Get Special Circular on these.

5 ft. size	Price	\$94.00	\$91.00	Net Cash
3½ ft. " (10)	"	91.00	88.00	" "

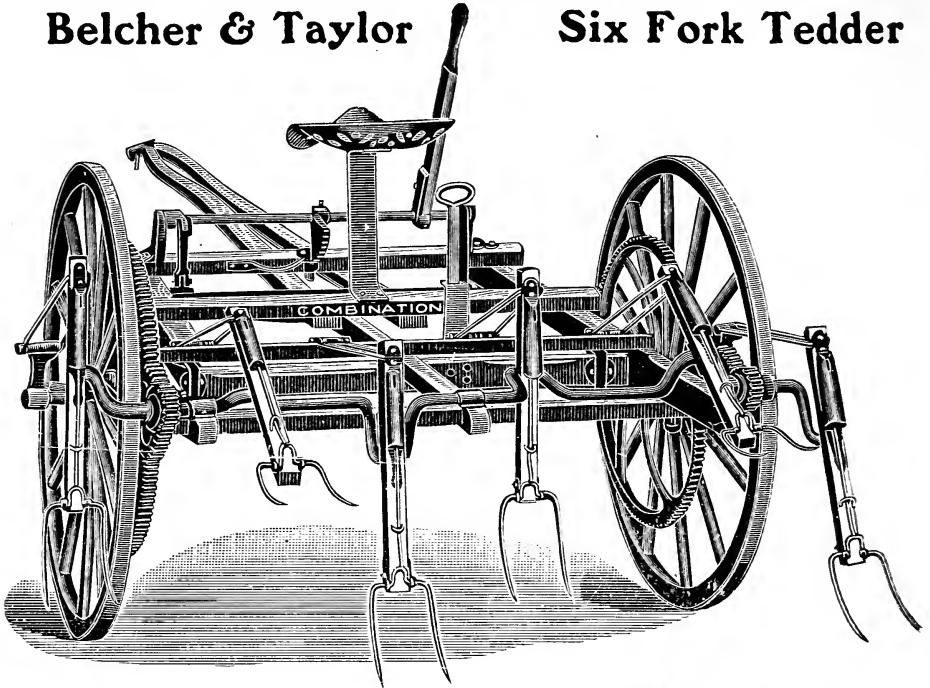
The Myers Clover-Leaf Unloader

PRICES

Clover Leaf Hay Unloader	-	\$12.00
Double Steel Track	-	35c per ft.
Hanging Hooks	- - -	20c each
Rafter Brackets	- - -	10c "
¾" Floor Hooks	- - -	20c "
Wood, Knot passing, pulley	-	1.00 "
Double Harpoon fork	-	5.00
Four tine Grapple fork Fig. 1351	-	16.00

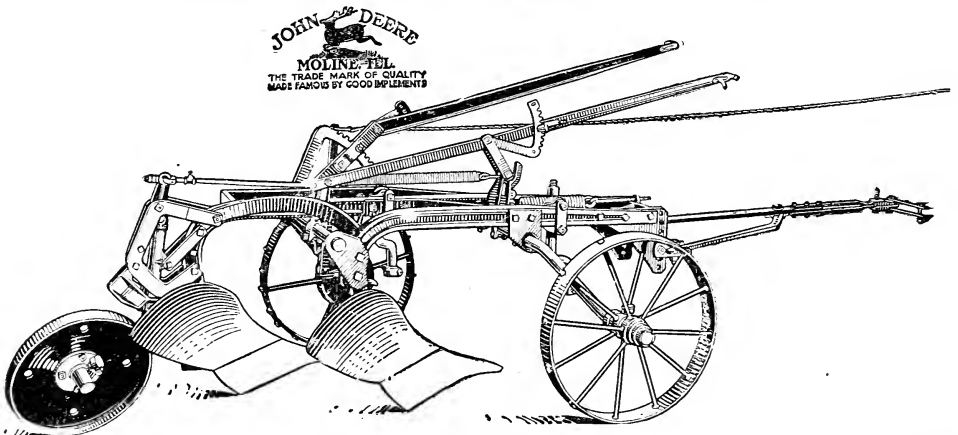


The advantage of a hay carrier as a means of storing away Hay or Grain are so well known that it is not necessary to go into details. They save the time and expense of from one to three men at harvest time—a large item.

Belcher & Taylor**Six Fork Tedder**

Price \$67.50 \$65.00 Net Cash

In the construction of this machine all the improved features of the Bullard and Mudgett Tedders are used with further valuable improvements of the makers. Their aim has been to make a tedder that would be more durable and hence cost the user less for repairs than any machine now on the market. We believe this has been accomplished.

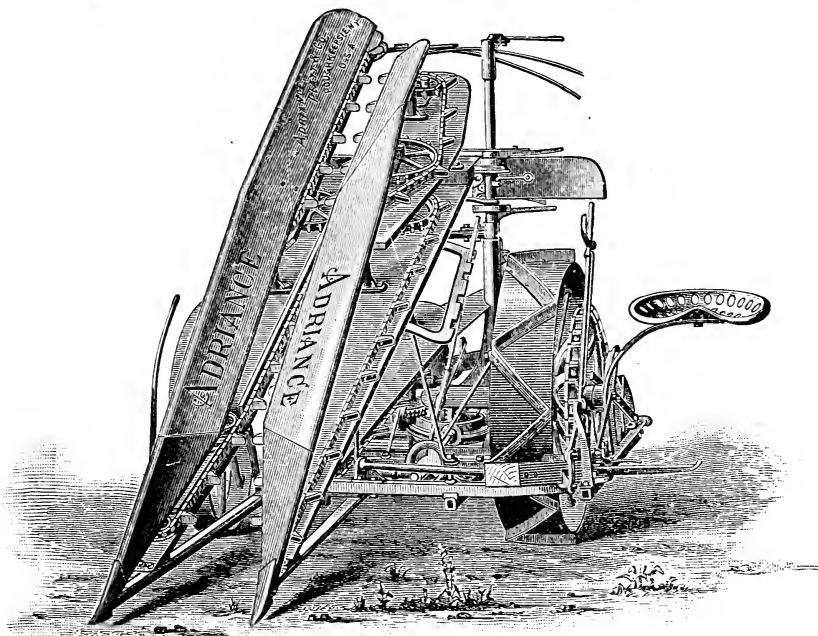
The John Deere Tractor Plow

The John Deere No. 5 Tractor Plow is furnished in two and three bottom sizes: either 10, 12, or 14 inch bottoms.

No. M.P.314-S-2 bottom 28 inch cut	Price \$195.20
John Deere Special for Ford Tractor	" 145.20
5% discount for cash.	

The Case 10-18 Tractor and a two bottom John Deere Plow make an ideal combination for small and large farms.

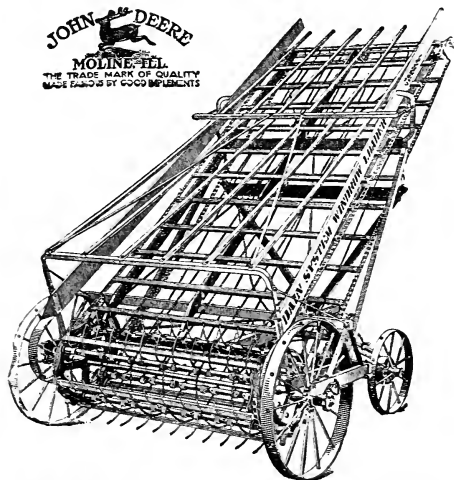
THE MOLINE CORN BINDER



This machine cuts the standing corn, binds it and delivers it in bundles ready for shocking. In the construction of the Adriance Binder no expense is spared to make it the lightest draft and the most durable of any of its class on the market.

Price, plain	\$248.00	\$240.00 Net Cash
" with power bundle carrier	263.00	255.00 " "

JOHN A. DEERE
MOLINE, ILL.
THE TRADE MARK OF QUALITY
MADE IN U.S.A. BY JOHN DEERE & CO.



A Dain Side Delivery Rake

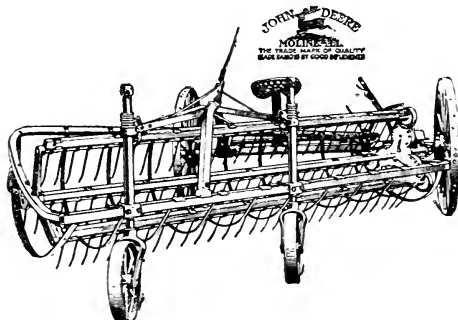
Will prove a profitable investment for any hay grower, for in addition to increasing the feeding value of the product it saves time by hastening the curing process.

Dain System 4 Wheel Rake, \$118.00
5% discount for cash.

Dain System Six Foot Hay Loader With Fore Carriage

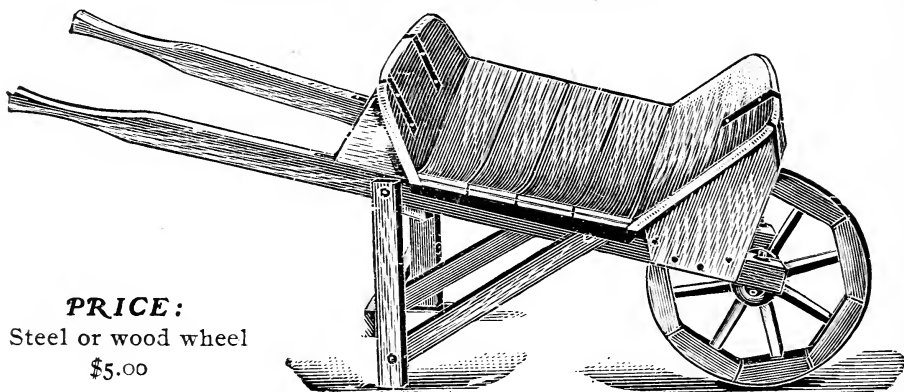
Price \$128.00 5% discount for cash.

Will handle anything from the lightest swath to the heaviest windrow. Strong and serviceable. The modern way of handling hay is the side delivery rake and hay loader.



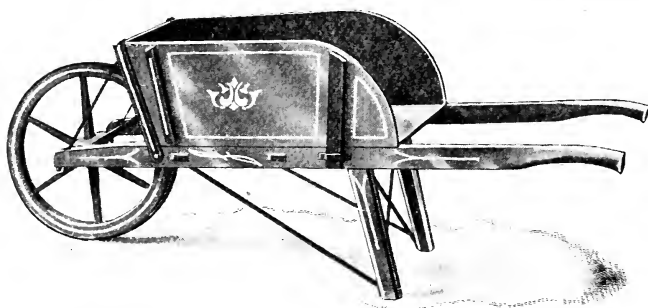
JOHN A. DEERE
MOLINE, ILL.
THE TRADE MARK OF QUALITY
MADE IN U.S.A. BY JOHN DEERE & CO.

CANAL BARROW



PRICE:
Steel or wood wheel
\$5.00

GARDEN BARROW



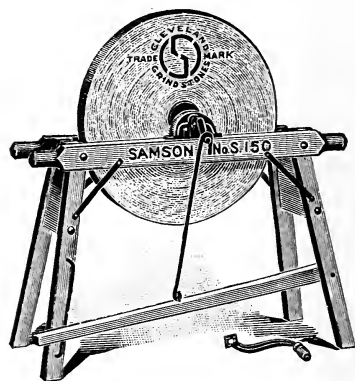
PRICES:
No. 2, \$10.50 each.
" 3, 9.50 "

CULTIVATOR



Popular High Wheel Cultivator, Price \$5.00

GRINDSTONES



No. 1 Sampson Wood
Frame . . . Price \$10.50
Bicycle Frame " 10.50



Farm of Mr. John Hartnett, So. Windsor, Conn. This field of tobacco on August 25th, 1920, seemed as near 100% perfect as a crop could be. Mr. Hartnett has used our Fertilizers for many years.



Harvest well advanced on the farm of Mr. William Bihl, Hockanum, Conn. Mr. Bihl has used our Fertilizers exclusively for many years and never fails to get the highest price.



Inoculate Your Alfalfa, Clovers, Cow Peas, Soy Beans
Vetches and all other legume crops with

Mulford Cultures

FOR LEGUMES

Small Cost Large Returns Easy to Use No Labor Expense



Alfalfa plant on left not inoculated. Plant on right inoculated with Mulford Culture for Alfalfa. All other conditions identical. This contrast speaks for itself.

Mulford Cultures contain pure, tested strains of active, vigorous nitrogen-fixing bacteria, for inoculating seeds of legumes or soil. Enormous numbers of these very valuable and desirable bacteria are thus available to you in every package of Mulford Culture and may readily be applied to your seed. The sealed bottle insures purity.

Increase Your Crops Improve Your Soil

Legumes offer the best-known means of maintaining soil fertility and rejuvenating over-cropped and worn-out fields. They add both humus and nitrogen to your soil and thus increase your yield of wheat, cotton, corn and other non-legume crops.

PRICES

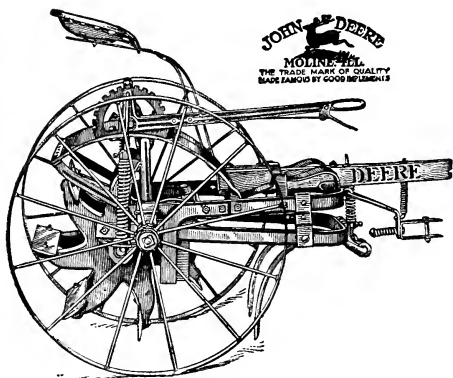
MULFORD CULTURES are supplied for the varieties of legumes listed, at the following prices:

5-Acre Size, \$5.00 ("A Dollar per Acre")	
1-Acre Size	\$1.50
1-4 Acre Size . . . . .	.50
Small Size (Supplied only in 4 varieties for Garden Peas, Garden Beans, Lima Beans and Sweet Peas) .	.25

Why buy expensive commercial nitrates when you can grow legume crops and thus increase your yield and at the same time increase the nitrates and enrich and renovate your soil, by Nature's own method?

FREE DESCRIPTIVE FOLDER SENT UPON REQUEST

STALK CUTTERS



These machines are great labor savers. Any farmer raising a considerable acreage of corn, Primed or Shade tobacco should own one.

Nine knife John Deere Cutter,	
Price \$65.00	Cash \$63.00
Seven knife Ohio Cutter,	
Price \$57.00	Cash \$55.00

O. & W. Guaranteed House Paints

Our Blue Label Paint is a pure linseed oil product, in 24 shades.

Ironite Barn and Roof Paint in 6 shades. A moderate priced paint, very satisfactory.

Wagon Paint in 5 shades.

Carriage Paint, a high grade varnish paint in 7 shades.

Floor Paint, very durable in 6 shades.

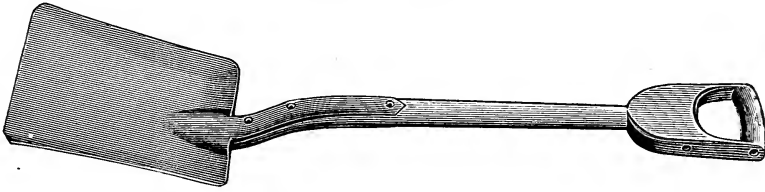
Send for color cards.

We also carry a complete stock of Varnish Stains, White and Blue Enamel, Screen Paint in Black and Green, Varnish-Spar, Floor, Furniture, Etc., Liquid and Japan Dryers, Wood Filler, Crack and Crevice Filler, Shellac, Paint and Varnish Remover, Putty, White Lead, Turpentine, Pure Linseed Oil and colors in Oil.

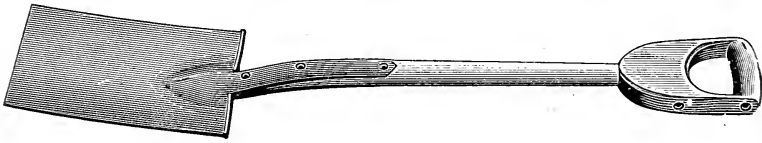
We call your attention to the guarantee which appears on every can of our paint and we simply invite you as a property owner to insure your property at our risk. Paint is the best insurance you can carry. It insures your property against decay and adds to its value.

Preparation of the Surface. Always allow a new building to stand a short time preferably through one or two rains before painting. Never paint over a rough or scaly surface. Sandpaper and a wire brush will remove roughness, but blisters require thorough use of a paint burner.

Square and Round Point D. or Long Handled Shovels.

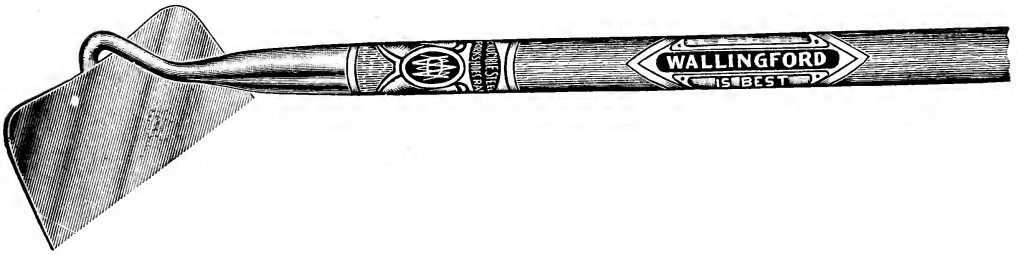


D. or Long Handled Spades



TOBACCO HOES

These Hoes are specially adapted to Connecticut Valley Trade.



Size	Price
3 x 8 inches . . . . .	.90 each
3 x 9 "	1.00 "
3 x 10 "	1.10 "
3 x 11 "	1.20 "

Special Hoes for Shade Grown Cultivation

Blade 7 x 2½ inches.	\$.85 each
" 7½ x 2½ " . . . . .	.85 "

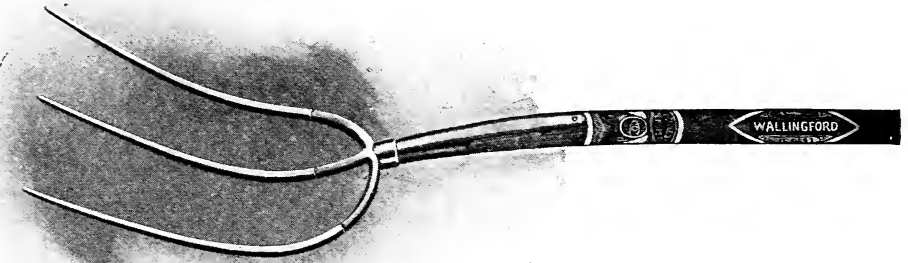
GARDEN OR FIELD HOES

Assorted sizes	\$.85 each
--------------------------	-------------

STEEL GARDEN RAKES

14 Teeth, 6 ft. Handle	Price, \$1.00 each
16 " " "	" 1.10 "
18 " " "	" 1.20 "

Oval Three-Tine Ferrule Hay Forks



4 ft. Straight handle	Price, \$1.00 each
4 ft. Bent " "	" 1.10 "
4½ ft. " " "	" 1.20 "
5 ft. " " "	" 1.20 "
5½ ft. " " "	" 1.35 "

MANURE FORKS



	Price Common ferrule Mall. D. Handle	Price Common ferrule Wood D. Handle	Price Strap ferrule Mall. D. Handle	Price Strap ferrule Wood D. Handle
4 Tine	\$1.35	\$1.60	\$1.50	\$1.80
5 "	1.65	1.90	1.75	2.00
6 "	2.00	2.20	2.10	2.30

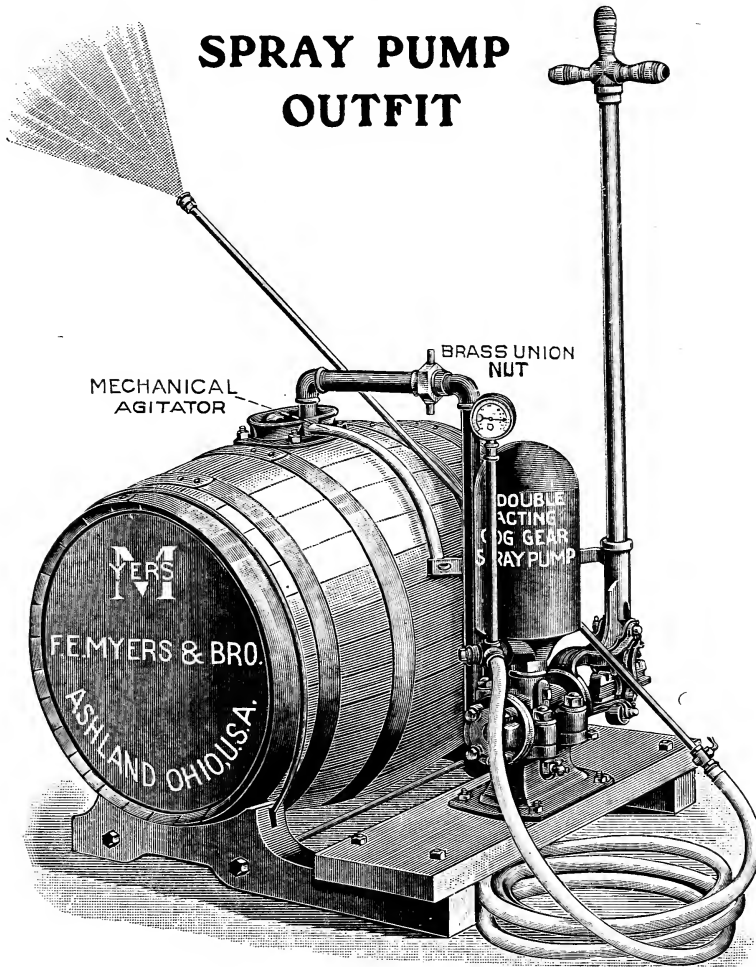
Large 4 Tine Fork for handling light manure \$2.50

SPADING FORKS

L. H. 4 Tine Strap ferrule	Price, \$1.50 each
Mall. D 4 " S 9 D "	" 1.60 "
Wood D. 4 Tine " "	" 2.00 "
4 Tine Manure Hook	" 1.25 "
5 " " "	" 1.40 "

POTATO HOOKS

5 Tine Bent Head, Solid Steel.	Price, \$1.25 each
6 " " " " "	" 1.40 "



R316C. 50 gal. barrel on skids with pressure gauge, two 15 ft. Leads of $\frac{1}{2}$ " hose two Fembro nozzles, two 8 ft. pipe extensions, with shut off and mechanical agitator.

Price \$75.00 Net.

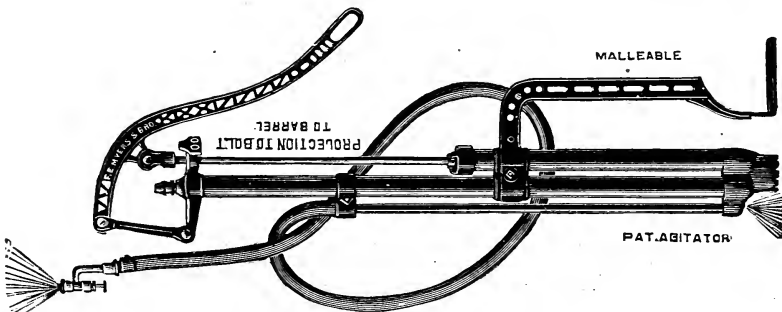


Fig. 1726-R324. Represents the Meyers Lever Bucket Spray Pump made of brass and fitted with brass ball valves and patent agitators. The cylinder is $1\frac{1}{2}$ inches in diameter with solid plunger. The air chamber is fifty per cent larger than the ordinary bucket pump, has malleable iron foot rest and malleable lever.

This pump can be operated with one-half the power required by the ordinary spray pump owing to the advantage of the lever handle. Price \$10.00

No. 327 $\frac{1}{2}$ Little Giant Bucket Spray Pump

" 7.00

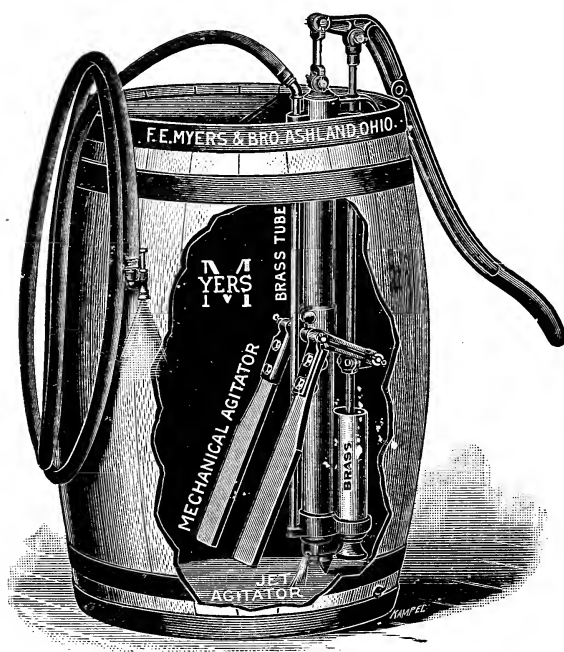


Fig. 1456. Represents the Myers Improved Barrel Spray Pump. This is a thoroughly serviceable pump well made and simple in construction, for open head barrel.

It has one lead of 15 feet of $\frac{1}{2}$ in. 5 ply discharge hose graduating vermorel nozzle and both jet and mechanical agitators.

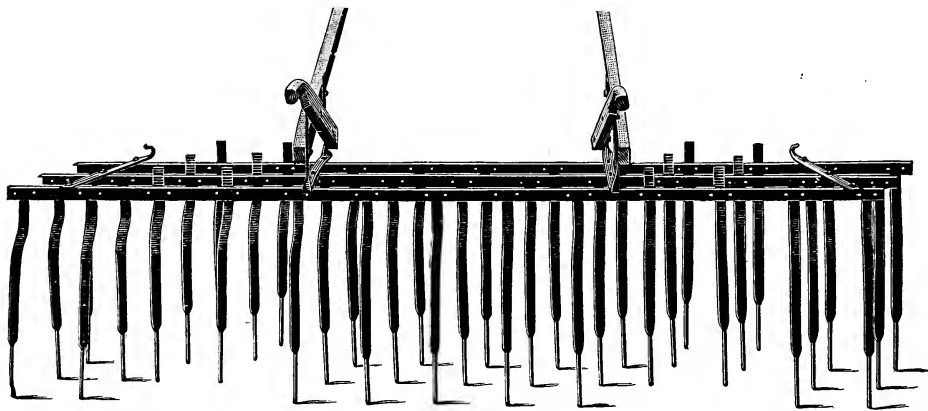
305B - \$21.00

R318B Myer's Cogged Gear. Barrel Spray Pump for closed head barrel.

Price \$23.50

THE ECLIPSE WEEDER

Price \$15.00 Net Cash Price \$14.00



The teeth are round and each one can be raised to different heights. Does most thorough and perfect work. May be adjusted for either hard scratching or for light work. Suitable for all soil conditions.

HALLOCK WEEDER

Price \$17.50 Net Cash \$16.50

A standard weeder having curved teeth.

Farmer's Caldron Furnace

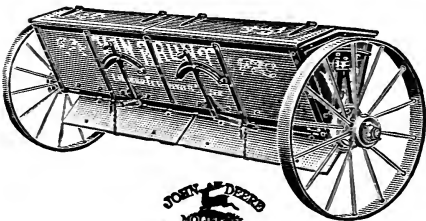
A necessity on every farm, for heating water and cooking stock feed.



Sizes 15 to 60 gallon

THESE Furnaces may be had fitted to burn either Coal or Wood. The Kettle may be bought separately and set in brick work if desired. Prices on application.

Van Brunt Lime and Fertilizer Sower



This sower is built in the standard size to cover eight feet of ground with a carrying capacity of ten bushels. For strength, durability and simplicity it is unexcelled.

Price, \$90.00 Net cash \$85.00

Sheet Metal Department

We specialize in all kinds of tin and sheet iron work to order. Estimates given on all kinds of tin roofing, gutter and conductor work.

We make tobacco seed bed sterilizing pans in any size desired. These pans are made of extra heavy galvanized iron, reinforced with angle iron on top and sides and fitted with pipe connections to connect with boiler. These pans are placed over the seed beds and live steam turned into them which will destroy all germ life. They have proven very beneficial and insure growth of good sturdy plants. Prices on application.

We make ventilators of galvanized iron for roofs of tobacco sheds in any size required. Strong and well made.

Experiments have proven that where sufficient heat is applied to sheds all danger of sweat tobacco is eliminated. For this purpose we make small sheet iron stoves with deflector tops also plain sheet iron deflectors to place over fires on the ground, to throw heat over a wide area. Prices on application.

Many growers have adopted the method of running galvanized pipes from cement stoves, set in the floor around the base of the shed. This method has been very successful. We make this pipe in any desired size. Estimate cheerfully given.

Galvanized iron vaporizing pans in any size made to order. We have a special iron that will not rust, costing but little more than regular iron which makes a very desirable pan.

OUR

O. & W. Asphalt Fibre Roofing

A Ready-to-lay roofing for Tobacco Sheds, Barns and all Similar Buildings.

Not the ordinary kind made of paper and tar, but a roofing of long felt wool fibre saturated with pure Asphalt. Fire resisting. Water proof. Comes in rolls of 108 sq. ft. and each roll contains nails and cement. Easy to lay. Cheaper than shingles.

Write us for free samples.

Asbestos Cement and Paper.

Cement. We offer a high grade asbestos cement in 100 lb. bags. Used in covering boilers or heaters or for general insulating purposes.

Paper. Asbestos paper for covering tin heater pipes and protecting wood work against fire; comes in rolls one yard wide, and cut to any desired length.

Asbestos Stove Clay. An asbestos fireclay for lining stoves and ranges. Cheaper and better than brick. Put up in convenient size packages for household use.

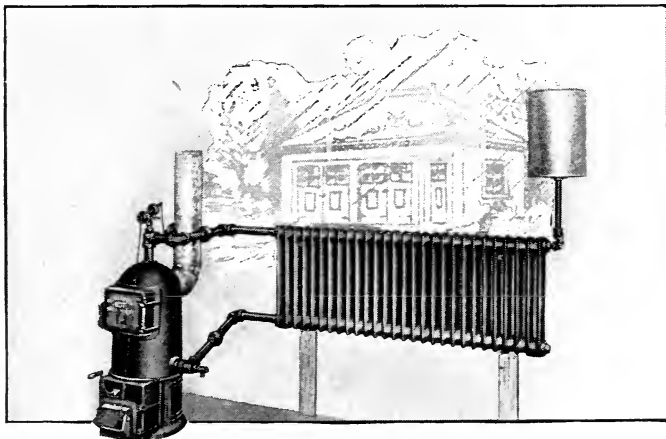
Richardson & Boynton Garage Heaters

1 Car
Price \$110.00.

2 Car
Price \$145.00.

For other sizes send
for Circulars and
Prices.

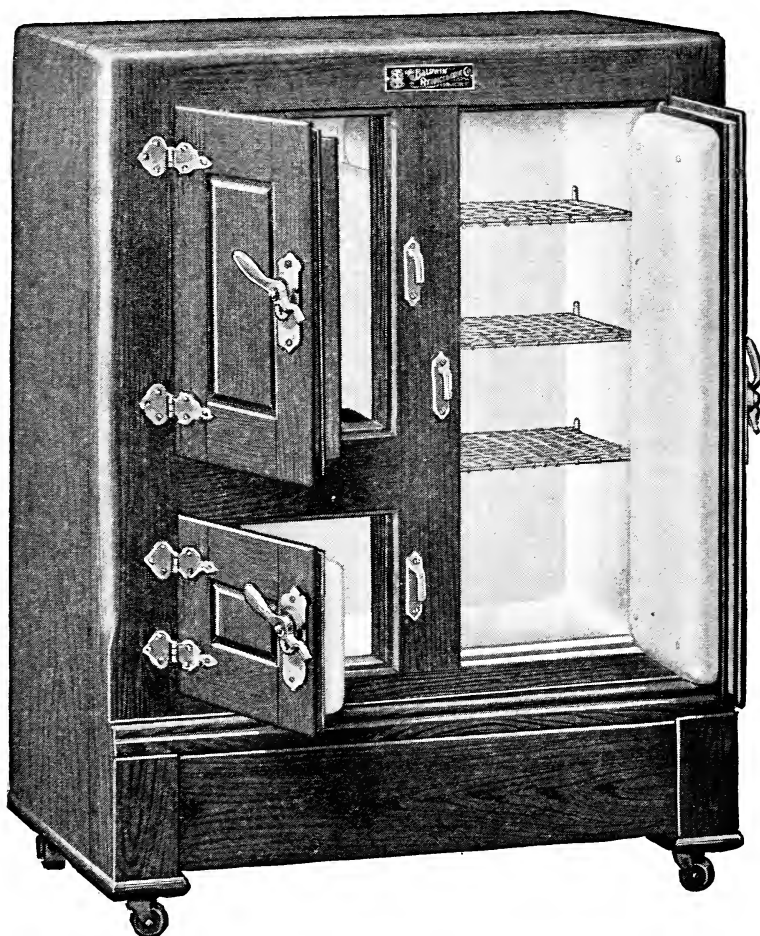
**Delivered Com-
plete Ready to
Set Up.**



BALDWIN

DRY AIR REFRIGERATORS

THE BOX WITH THE STEADY COLD WAVE



Baldwin Dry Air Refrigerators are built of best quality kiln dried stock. Their base is a strong frame, one side of which is covered with a heavy non-conducting sheathing paper, and the other side with two thicknesses of heavy sheathing paper. This with inside walls and outside casing, gives six insulating surfaces and dead air space, and covers every joint and nail in the frame.

By this method of construction we have a perfect air-tight dead air space between the two walls, a most desirable feature, dead air being conceded to be the best non-conductor of heat and cold. No charcoal or other filling being used, the walls do not bulge or swell. Where packing is used, it is liable to absorb and retain moisture, and to settle between the walls or sift out during transportation and use, leaving an empty space around the top of the refrigerator. Made in a large variety of styles and sizes. Send for Catalogue and Prices.



RANGE DEPT.

FOR OVER 40 YEARS
WE HAVE SOLD
THE

RICHMOND RANGE

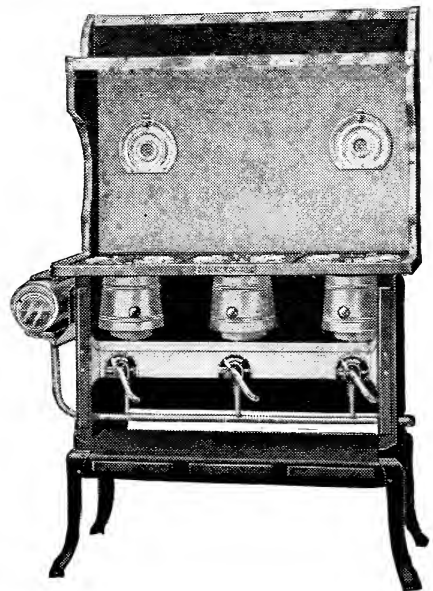
The Range that is
guaranteed to bake.
None better at any
price.

All the latest
improvements.
Beautiful in design
and finish. All sizes.



THE RICHMOND RESERVOIR RANGE

For the country home where there is no avail-
able hot water supply. These tank ranges are ideal
water heaters
as well as good
cookers.



Florence Automatic Oil Stoves.

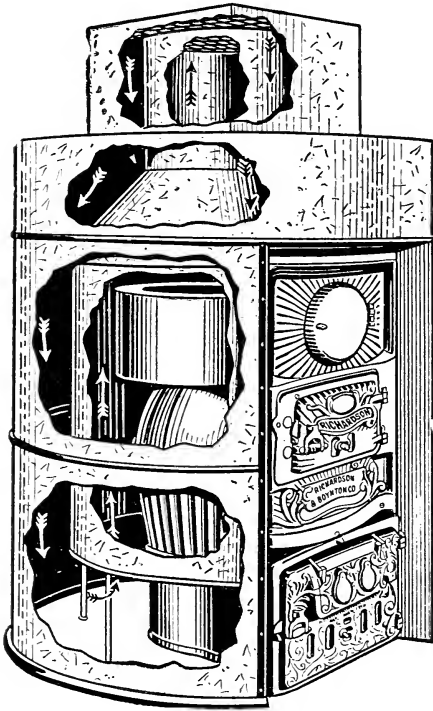
Perfect Cooking and Baking done
on these Oil Stoves. Absolutely safe,
clean and odorless.

Two, Three and Four
Burner. Single and
Double Ovens.

Prices on Application.

These Oil Heaters do perfect baking and cooking.
Fitted with oven, any kind of baking may be done. They
are absolutely safe as the oil reservoir is outside the stove
and the supply is conducted through pipes only as required.

Why Be Chilly? It Is So Easy To Be Warm



We offer you a condensed heating plant thoroughly tried out for three years and giving perfect satisfaction in thousands of homes in all parts of the country.

This system not only sends the warm air throughout the house but draws the cooler air from the floor to the register and reheats it, thereby producing perfect circulation.

The "Richardson One-Pipe Heaters" are so constructed that they heat the entire house through the one register. This register is divided into two parts. The warm air passing up in a

constant flow through the center opening and the cooler air being drawn down to the Heater through the outer section.

These heaters are adaptable for old houses as well as new. There is no ripping up of walls and partitions for the installation, but merely the fitting of one floor register.

The ease and quickness with which they are put in does not annoy or inconvenience the house owner—all that is needed is a cellar and a good chimney.

These Heaters are made in different sizes. Send for our new Catalogue.

Where houses are not adapted for the ONE-PIPE Heater we can install a furnace with a pipe to every room. Estimates cheerfully given.

USEFUL CHEMICAL MEMORANDA

(Partly from the first annual report of the Connecticut Agricultural Experiment Station, 1876.)

Animal and vegetable substances, such as flesh, bone, wood, grain, manure, and the like, contain three classes of materials: Water, Organic Matters and Mineral Matter or Ash. If we heat a piece of wood, a whisp of hay, a bone, or a portion of manure or soil, in an oven, the water will be dried out. If we put the dried material in the fire, the *Organic Matter*, which consists mostly of the chemical elements, carbon, oxygen, hydrogen, and nitrogen will be burned away, and there will remain the *Mineral Matter* or *Ash*. The ash of these different materials generally contains more or less potash, soda, lime, magnesia, iron, alumina, silica, phosphoric acid, sulphuric acid, chlorine, or other ingredients. The proportions of these vary widely in different substances, from the large quantities to the merest traces.

Moisture.—All fertilizers contain more or less water, which, of course has no commercial value, and serves to make them heavier and relatively poorer in valuable ingredients. In the analysis that which is removed by heating to 212° Fahrenheit (or in some cases to a somewhat higher temperature), is designated as moisture. By subjecting the dried material to a higher temperature, the organic and volatile matters are driven off, and the ash remains. By treating this ash with strong acids, all that is of any value is dissolved.

Sand and Insoluble Matters.—The residue, which resists the action of both fire and strong acids, consists of silica and other mineral matters. These possess no fertilizing value, and are classified as sand, etc.

Nitrogen, Ammonia.—In our ordinary fertilizers, much or all of the nitrogen exists in unavailable forms. By more or less rapid alterations, by decay or otherwise which take place in the soil, these are changed to other compounds, which the plant can readily use as food. Of these latter nitric acid, which contains nitrogen combined with oxygen, is one; ammonia which consists of nitrogen and hydrogen and is represented by the chemical formula NH_3 is another. 14 parts by weight of nitrogen unite with 3 parts of hydrogen to form 17 parts of ammonia. Accordingly 14 parts of nitrogen are said to be equivalent to 17 of ammonia, or what is the same thing 100 parts of nitrogen are reckoned as equivalent to 121 parts of ammonia. In pure sulphate of ammonia, all the nitrogen is in the form of ammonia. In Peruvian guano, some of the nitrogen exists as ammonia also. In our ordinary fertilizers there is little or no ammonia. The very common practice of reckoning nitrogen as ammonia in fertilizers which do not contain it in this form is incorrect, misleading and therefore wrong, and ought to be abolished. Ammonia combined with sulphuric acid, forms sulphate of ammonia; nitric acid combined with soda, forms nitrate of soda.

Phosphoric Acid: SOLUBLE, REVERTED AND INSOLUBLE.—By phosphoric acid is understood the compound of phosphorous and oxygen, which is represented by the chemical formula, P_2O_5 . This combined with lime, forms phosphate of lime. The phosphate of lime which occurs in bone, and in South Carolina and other fossil and mineral phosphates, contains three parts of lime to one of phosphoric acid. This is often called bone phosphate, and is insoluble in water. When the bone phosphate is treated with sulphuric acid, the latter takes part of the lime to itself, forming sulphate of lime, and leaves the phosphoric acid in the form of a *Superphosphate*. This last is soluble in water, and when used as a fertilizer can be taken up by the plant at once, while the bone phosphate is slowly available as plant food. Phosphoric acid which has been rendered soluble, often enters into other forms of combination with lime, alumina, etc., which, though insoluble in water, are soluble in citrate of ammonia. The terms, reverted, reduced and precipitated, are applied to it when in this form.

The reverted phosphoric acid ranks in solubility, and consequently in value, between the soluble and insoluble. The soluble and reverted are sometimes classed together as *Available* phosphoric acid.

In some analyses the percentage of phosphoric acid is not stated separately, that of "bone phosphate of lime" being given in its stead. Sometimes the expression "soluble bone phosphate of lime" is met with, which is certainly a misnomer. 142 parts by weight of phosphoric acid P_2O_5 unite with about 168 parts of lime CaO to form 310 parts of bone phosphate $Ca_3(PO_4)_2$; 100 parts or pounds of phosphoric acid are said, therefore, to be equivalent to 218 parts of bone phosphate. Special stress is laid on this point, because those not familiar with chemistry are apt to be deceived in comparing analyses, in some of which the term phosphoric acid, and in others the term bone phosphate, is used. It would be more accurate and clear, and in every way better to discard the term bone phosphate of lime in analyses of fertilizers, and speak only of phosphoric acid.

Potash, or potassa, is the compound of the metal potassium with oxygen, which is represented by the chemical formula K_2O or KO . This combined with sulphuric acid forms sulphate of potash. Potassium and chlorine together form chloride of potassium, or "muriate of potash," as it is called by dealers.

100 pounds of pure sulphate of potash contains about 54 pounds of "actual potash." 100 pounds of sulphate of potash are therefore said to be equivalent to 54 pounds of actual potash, and vice versa, 54 pounds of potash, in the sulphates are reckoned as equivalent to 100 pounds of sulphate of potash. In the "muriates" 100 pounds of chloride of potassium are reckoned equivalent to about 63 pounds of potash, and vice versa.

Carbonate of Potash, K_2CO_3 — This fertilizer chemical is the ingredient which gives to wood ashes and cotton hull ashes their value as tobacco fertilizers, and it is practically free from magnesia. It was formerly prepared by extraction from wood ashes, and formed the "pearl ash" of commerce. It has been used with good effect as a tobacco fertilizer in the Poquonock experiments.

The following figures will be found useful in calculations of the composition of fertilizers.

NITROGEN COMPOUNDS

14.	parts of Nitrogen	are contained in	17.	parts of Ammonia.
100.	"	"	121.43	"
82.35	"	"	100.	"
17.	Ammonia	"	66.	Sulphate of Ammonia.
100.	"	"	388.2	"
25.8	"	"	100.	"
14.	Nitrogen	"	66.	"
100.	"	"	471.4	"
21.2	"	"	100.	"
14.	"	"	54.	Nitric Acid.
100.	"	"	385.7	"
25.9	"	"	100.	"
14.	"	"	85.	Nitrate Soda.
100.	"	"	607.1	"
16.47	"	"	100.	"
54.	Nitric Acid	"	85.	"
100.	"	"	157.4	"
63.5	"	"	100.	"
85.	Nitrate of Soda correspond to	17.	Ammonia.	
100.	"	20.	"	
500.	"	100.	"	

PHOSPHORIC ACID

100.	parts of Phosphoric Acid correspond to	218.3	parts of Bone Phosphate.
45.8	"	100.	"

POTASH (Potassa)

100.	parts of Sulphate of Potash contains	54.08	parts of Potassa.
184.9	"	100.	"
100.	Chloride of Potassium correspond to	63.17	parts of Potassa.
158.3	"	100.	"

INDEX

	Page
Asbestos Cement,	71
Asbestos Paper,	71
Asparagus,	6
Beans, Bush,	6
Beans, Pole,	7
Beets,	7
Bone Meal,	25
Broccoli,	8
Brussels Sprouts,	9
Bug Death,	32
Bug Death Sifters,	32
Cabbage,	9
Caldrons,	69
Carrot,	11
Cauliflower,	11
Celery,	10
Corn, Field,	12
Corn, Sweet,	11
CORN BINDERS:	
Moline,	61
CORN PLANTERS:	
Deere, No. 999,	53
King of the Corn Field,	46
Cress,	12
Cucumber,	13
CULTIVATORS:	
Hand, (See Planet, Jr.),	62
Dandelion,	13
Egg Plant,	13
Endive,	14
Fertilizer Sowers, Broadcast,	37
Fertilizer Sowers, Drill,	36
Fertilizer Sowers, Row,	36
Flower Seeds,	26
FORKS:	
Hay,	66
Manure,	66
Spading,	66
Furnaces,	74
Garage Heaters,	71
Garden Fertilizers,	25
Grindstones,	62

	Page
HARROWS:	
Acme,	44
Clark Cutaway, Regular,	42
Clark Cutaway, Double Action	41
Clipper Smoothing,	45
Meeker,	45
Spike Tooth,	41
Spring Tooth,	43
Hay Loaders,	61
HAY RAKES:	
Dain Side Delivery,	61
Deere Steel,	58
Moline Steel,	58
Wiard Wood,	57
Yankee Wood,	57
Hay Tedders,	60
Hay Unloaders,	59
Herbs,	24
Hoes,	65
Kale,	14
Kohl Rabi,	14
Lawn Fertilizer,	25
Lawn Grass Seed,	25
Lawn Mowers,	34
Lawn Rollers,	35
Leek,	14
Lettuce,	15
Lime, Agricultural,	4
Manure Spreaders,	53
Markers, Field,	45
Melon, Musk,	16
Melon, Water,	15
MOWING MACHINES:	
Dain,	57
Moline,	59
Mulford Cultures,	63
Mustard,	15
Oil Stoves,	73
Okra,	17
Onion Seed	17
Onion Sets	18
Paints,	64
Parsley,	18
Parsnip,	18
Peas,	18-19
Pepper,	19

INDEX—Continued

	Page		Page
PLANET JUNIOR IMPLEMENTS:		Refrigerators,.....	72
Cultivators, Hand,.....	49-50	Rhubarb,.....	21
Cultivators, Horse,.....	47	Roofing,.....	71
Cultivators, Riding,.....	51	Ruta Baga,.....	24
Extras,.....	52	Salsify,.....	21
Harrow, 12-Tooth,.....	47	Sheep Manure,.....	25
Seeders,.....	48	Sheet Metal Department,.....	70
PLOWs:		Shovels,.....	65
Deere Sulky,.....	39	Spinach,.....	21
Deere Tractor,.....	60		
Oliver Sulky,.....	37	SPRAYERS:	
Oliver Walking,.....	38	Iron Age, 4-Row,.....	55
Syracuse Walking,.....	39-40	Myers Barrel Outfit,.....	67
Potatoes,.....	20-30-31	Myers Barrel Pumps,.....	68
Potato Diggers,.....	56	Myers Bucket Pump,.....	67
POTATO PLANTERS:		Squash,.....	22
Hoover,.....	43	Stalk Cutters,.....	63
Iron Age,.....	55	Sweet Peas,.....	27
Potato Ridgers,.....	45	Tobacco Seed,.....	24
Prout's Hoeing Machine,.....	46	Tobacco Transplanters,.....	54
Pulverizers,.....	35	Tomato,.....	23
Pumpkin,.....	20	Tractor Plows,.....	60
Radish,.....	20-21	Turnip,.....	23-24
Rakes, Garden, (See Hay Rake),	65	Weeders,.....	68
Ranges,.....	73	Wheelbarrows,.....	62
		Wood Ashes,.....	25

SEED AND PLANT TABLES.

	Quantity per Acre	Weight Per Bu.
Barley	95 to 120 lbs.	48 lbs.
Blue Grass (Canada)	25 to 40 lbs.	14 lbs.
" (Kentucky)	25 to 40 lbs.	14 lbs.
Buckwheat	50 to 60 lbs.	60 lbs.
Clover-Alfalfa (Broadcast)	20 to 30 lbs.	60 lbs.
" (Drills)	15 to 20 lbs.	60 lbs.
" Crimson	10 to 20 lbs.	60 lbs.
" Red	10 to 15 lbs.	60 lbs.
" White.	5 to 10 lbs.	60 lbs.
Corn (Hills)	15 to 20 lbs.	56 lbs.
" (drills for fodder)	60 to 75 lbs.	56 lbs.
" (broadcast)	120 to 150 lbs.	56 lbs.
Cow Peas in Drills.	60 to 90 lbs.	60 lbs.
Millet (Common)	25 to 40 lbs.	48 lbs.
" (Hungarian)	25 to 40 lbs.	48 lbs.
" (Japanese)	12 to 20 lbs.	32 lbs.
Oats	60 to 90 lbs.	32 lbs.
Orchard Grass	25 to 40 lbs.	14 lbs.
Rape (broadcast)	5 to 6 lbs.	60 lbs.
" (drills)	3 to 4 lbs.	60 lbs.
Red Top (unhulled)	25 to 40 lbs.	14 lbs.
" (recleaned)	10 to 15 lbs.	35 lbs.
Rhode Island Bent Grass	25 to 40 lbs.	14 lbs.
Rye Grass (Italian)	40 to 50 lbs.	18 lbs.
Soja Beans (broadcast)	50 to 75 lbs.	60 lbs.
" (in rows)	20 to 30 lbs.	60 lbs.
Sudan Grass	15 to 20 lbs.	
Timothy	15 to 30 lbs.	45 lbs.
Vetch (Spring)	50 to 70 lbs.	60 lbs.
Vetch (Winter)	30 to 60 lbs.	60 lbs.
Wheat	90 to 120 lbs.	60 lbs.
Potatoes,	12 Bu.	60 lbs.
Clover,		8 pounds
Timothy, } together, for one acre,		1/4 bushel
Red Top, }		1 bushel
Peas in drills are sown 1 1/4 to 1 1/2 bushels to the acre.		
Carrots,	usually sown to the acre, 2 1/2 to 3 lbs.	
Beets,	" " " " " 4 to 6 lbs.	
Parsnips,	" " " " " 3 to 6 lbs.	
Onions,	" " " " " 4 to 6 lbs.	
Ruta Bagas,	" " " " " 1 lb.	
Turnips,	" " " " " 1 to 1 1/2 lbs.	
Beans,	" " " " " 1 1/2 to 2 bu.	

Quantity of Corn Required to Plant an Acre, Five Grains in a Hill.

3 ft. x 2	18 qts.	3 ft. x 3	14 qts.
3 1/2 ft. x 3	10 qts.	3 3/4 ft. x 3	8 qts.
3 ft. x 4	7 qts.	4 ft. x 4	6 qts.

Number of Plants per Acre at Given Distances.

1 ft. x 1 ft.	43,560	9 ft. x 9 ft.	537
1 1/2 ft. x 1 1/2 ft.	19,360	12 ft. x 12 ft.	362
2 ft. x 2 ft.	10,890	15 ft. x 15 ft.	163
2 1/2 ft. x 2 1/2 ft.	6,969	18 ft. x 18 ft.	134
3 ft. x 3 ft.	4,840	20 ft. x 20 ft.	100
4 ft. x 4 ft.	2,722	25 ft. x 25 ft.	73
5 ft. x 5 ft.	1,742	30 ft. x 30 ft.	47
6 ft. x 6 ft.	1,210	40 ft. x 40 ft.	20

Quantity of Seed Required for a Given Number of Plants, or Number of Hills, or Length of Drill.

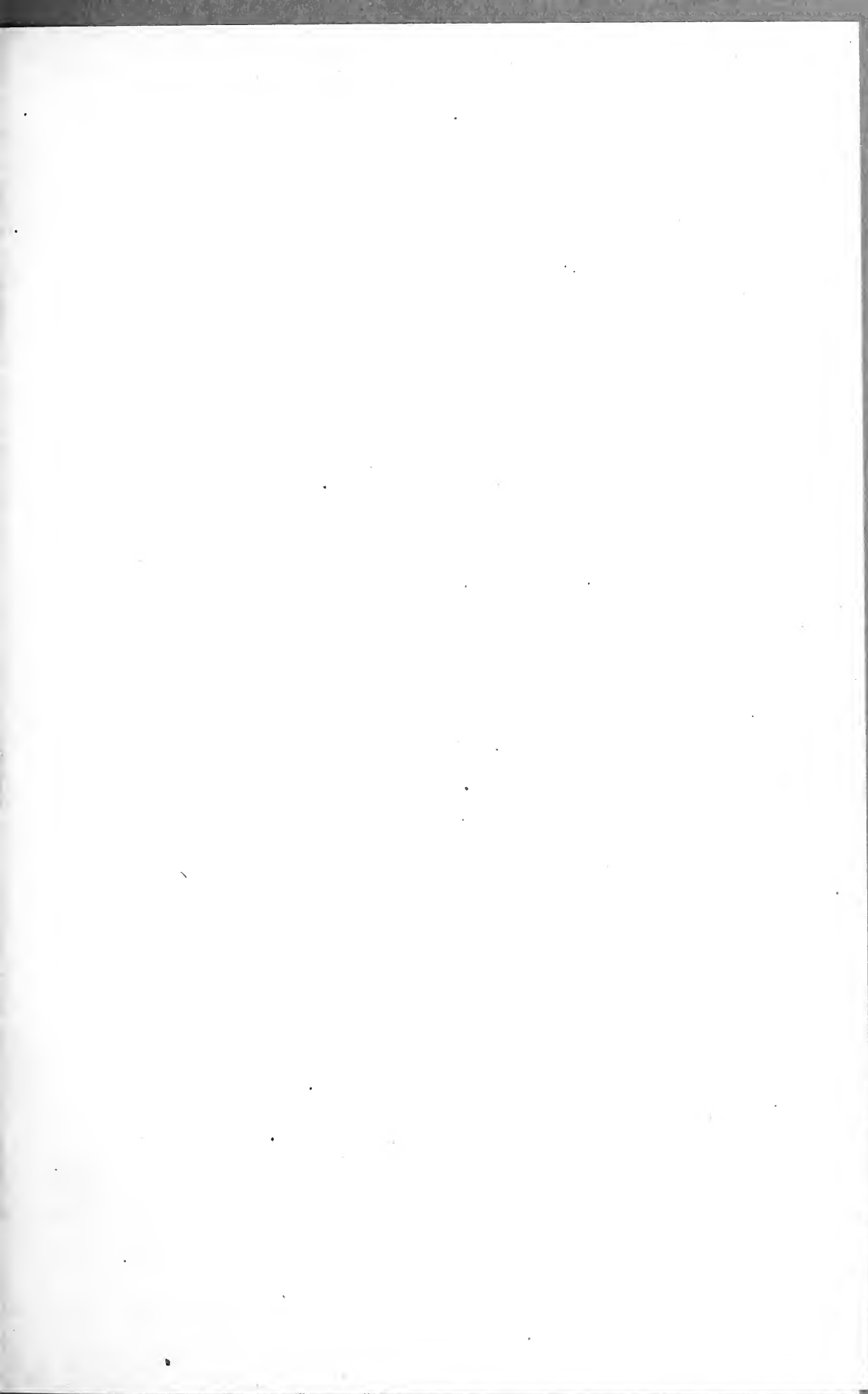
Asparagus,	1 oz. to 65 ft. of drill	Musk Melon,	1 oz. to 60 hills
Beets,	1 oz. to 50 ft. of drill	Okra,	1 oz. to 40 ft. of drill
Beans, Dwarf,	1 qt. to 100 ft. of drill	Onion,	1 oz. to 100 ft. of drill
Beans, Pole,	1 pt. to 150 hills	Onion Sets, small,	1 qt. to 4 ft. of drill
Carrot,	1 oz. to 150 ft. of drill	Parsley,	1 oz. to 150 ft. of drill
Cabbage,	1 oz. to 3,000 plants	Parsnip,	1 oz. to 200 ft. of drill
Cauliflower,	1 oz. to 3,000 plants	Peas,	1 qt. to 100 ft. of drill
Celery,	1 oz. to 4,000 plants	Pumpkin,	1 oz. to 40 hills
Cucumbers,	1 oz. to 50 hills	Pepper,	1 oz. to 2,000 plants
Corn,	1 qt. to 400 hills	Radish,	1 oz. to 100 ft. of drill
Dandelion,	1 oz. to 200 ft. of drill	Salsify,	1 oz. to 70 ft. of drill
Endive,	1 oz. to 150 ft. of drill	Spinach,	1 oz. to 100 ft. of drill
Egg Plant,	1 oz. to 2,000 plants	Squash, early,	1 oz. to 50 hills
Lettuce,	1 oz. to 4,000 plants	Squash, marrow,	1 oz. to 16 hills
Leek,	1 oz. to 100 ft. of drill	Tomato,	1 oz. to 3,000 plants
Watermelon,	1 oz. to 80 hills	Turnip,	1 oz. to 150 ft. of drill

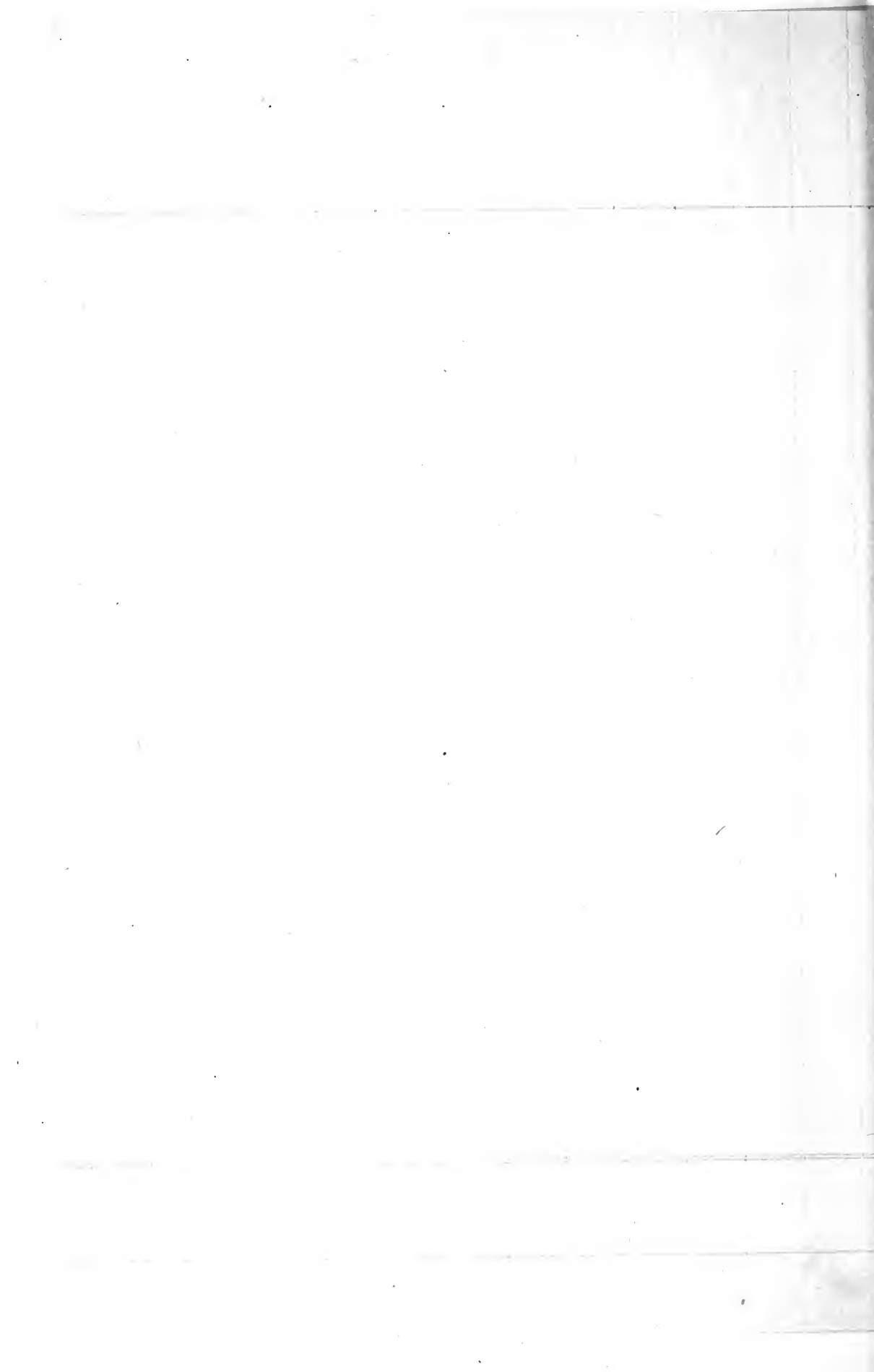
One Gallon, by the U. S. Standard Unit of Liquid Measure contains 231 cubic inches.

The U. S. Bushel contains 2,150.42 cubic inches.

An Acre contains 43,560 square feet.







ORDER SHEETS FOR FARM AND GARDEN SEEDS

FROM

OLDS & WHIPPLE, Inc.

164-6-8 STATE STREET,

HARTFORD, CONN.

Name.....

P. O. Address.....

Ship by.....

Ship to.....

Date.....192

Quantity.

NAME OF ARTICLES WANTED.

Price.

